Catch and Effort Statistics of the Canadian Groundfish Fishery on the Pacific Coast in 1986

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by

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ABSTRACT

Leaman, J. E. and R. D. Stanley. 1987. Catch and effort statistics of the Canadian groundfish fishery on the Pacific coast in 1986. Can. Tech. Rep. Fish. Aquat. Sci. No. 1584: 81 p.

Catch and effort statistics for the Canadian groundfish fishery (excluding halibut) on the Pacific coast in 1986 are presented. Statistics are shown by major areas, minor areas, and International North Pacific Fisheries Commission areas in metric tonnes (t). Total domestic landings in 1986 were 16% above the total for 1985. The bulk (86%) of the catch was taken by trawl gear. The main species landed were hake, Pacific ocean perch, sablefish, yellowtail rockfish, lingcod, Pacific cod, dogfish, and silvergray rockfish.

Joint-venture and foreign fisheries along Canada's west coast caught 53,878 t of Pacific hake in 1986.

Key words: groundfish, Pacific coast, catch statistics, effort statistics

RESUME

Leaman, J. E. and R. D. Stanley. 1987. Catch and effort statistics of the Canadian groundfish fishery on the Pacific coast in 1986. Can. Tech. Rep. Fish. Aquat. Sci. No. 1584: 81 p.

On présente des statistiques sur les prises et l'effort dans le cadre de la pêche canadienne du poisson de fond (sauf le flétan) sur la côte du Pacifique en 1986. Les statistiques sont ventilées en tonnes métriques (t) selon les importantes zones de pêche, les zones secondaires et les zones établies par la Commission des pêches du Pacifique nord. Le total des débarquements canadiens en 1986 était de 16% supérieur à celui de 1985. La plus grande partie des prises (86%) a été capturée au chalut. Elles se composaient surtout de merlu, de sébaste à longue mâchoire, de morue charbonnière, de sébaste à queue jaune, de morue-lingue, de morue du Pacifique, d'aiguillat et de sébaste argenté.

Des entreprises de pêche étrangères et conjointes oeuvrant sur la côte ouest du Canada ont capturé 53 878 t de merlu du Pacifique en 1986.

Mots-clés: poisson de fond, côte du Pacifique, statistiques des prises, statistiques de l'effort

INTRODUCTION

The Canadian fishery for groundfish along Canada's west coast involves many species of demersal fishes, the majority of which are caught by bottom and midwater trawls. The remaining catch is taken by trap, longline, handline and troll. Excluding halibut, these domestic groundfish landings contributed an average of 35,664 metric tonnes (t) to the annual fish production of Canada during 1976-85. The total landings of major groundfish species, caught by all types of gear from all areas on the Pacific coast during 1976-86, are shown in Table 1.

The Fisheries Research Branch, Pacific Biological Station, Nanaimo, B.C., maintained port liaison officers at Vancouver, Steveston and Prince Rupert during 1986. These persons conducted interviews with captains of trawl and trap vessels to collect information on effort expended for groundfish catches, by species, area and depth as well as other pertinent data. The landings not covered by these interviews were obtained from the sales slips collected by the Statistics Division of the Fisheries Branch in Vancouver. All available 1986 data are included in this report. While changes are rare, individuals using these data for analyses should refer to the author for confirmation.

Total 1986 domestic landings of 52,182 t were 46% above the 1976-85 mean and 16% above the 1985 level. Pacific ocean perch and other rockfish species were the dominant landings accounting for 48% of the total catch. There were increases in landings of hake (6,802 t), rockfish species (24,954 t), dogfish (3,289 t) and Pacific cod (3,650 t). Landings of lingcod (3,827 t), pollock (577 t) and English sole (452 t) showed decreases from 1985 catches.

In 1986, joint-venture and foreign fisheries were conducted along the British Columbia coast by Poland and the U.S.S.R. These fisheries caught 53,878 t of Pacific hake, more than double the amount taken in 1985.

This portion of the document is the traditional report of landings (t) by species, by discrete domestic (minor) fishing areas and by larger United States-Canadian (major) areas, commonly called Pacific Marine Fisheries Commission (PMFC) areas.

MAJOR STATISTICAL AREA DIVISIONS

Standardization between Canada and the United States in reporting of groundfish catches on the Pacific coast has resulted in assignment of catches to certain major statistical areas. In the United States these international

Table 1. Total Canadian landings[a] (t) of groundfish by species, taken by all gear from all areas on the Pacific coast, 1976-86.

Species	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Mean 1976-85	1986
English sole	1,307	1,469	809	1,069	1,244	1,500	559	532	812	692	999	452
Rock sole	2,157	1,252	1,312	1,874	1,843	1,059	745	668	525	430	1,187	454
Petrale sole	340	289	230	202	222	290	367	439	417	336	313	416
Dover sole	1,158	700	736	861	1,273	1,245	914	871	1148	963	987	1,167
Rex sole	133	99	102	203	145	190	74	49	219	205	142	87
Starry flounder	50	89	74	296	118	198	168	66	170	66	130	54
Turbot	1,310	1,599	2,326	1,826	1,448	946	525	323	369	764	1,144	895
Other flatfish	9	15	25	59	57	183	220	199	141	161	107	215
Pacific cod	10,107	7,717	6,750	9,554	8,703	6,708	4,810	4,505	3,465	2,342	6,466	3,650
Lingcod	2,320	2,248	2,004	2,098	2,151	2,467	4,162	3,755	3,688	5,668	3,056	3,827
Sablefish	795	1,088	831	2,031	3,793	3,888	3,976	4,414	3,855	4,275	2,895	4,668
Pollock	1,322	890	2,407	3,387	2,201	1,251	924	1,070	800	1,895	1,615	577
Hake	-	2	2	818	606	5,691	2,826	3,122	4,600	6,055	2,372	6,802
Pacific ocean perch	1,745	2,716	3,864	2,819	5,290	5,103	5,983	5,655	6,698	6,069	4,594	5,914
Other rockfish	2,543	5,235	6,608	5,962	4,476	4,857	5,093	7,024	8,512	11,709	6,202	19,040
Misc. species	220	289	163	215	303	266	141	156	175	192	212	245
Dogfish	242	1,730	3,126	4,757	4,547	1,151	3,875	3,274	2,510	2,815	2,803	3,289
Animal food	100	49	112	214	191	42	65	94	161	309	134	255
Reduction	299	181	302	240	528	302	450	321	244	214	308	175
Total	26,157	27,657	31,783	38,485	39,139	37,337	35,877	36,537	38,509	45,160	35,664	52,182

[a]Does not include catches from joint-venture or foreign fishery, see Table 53.

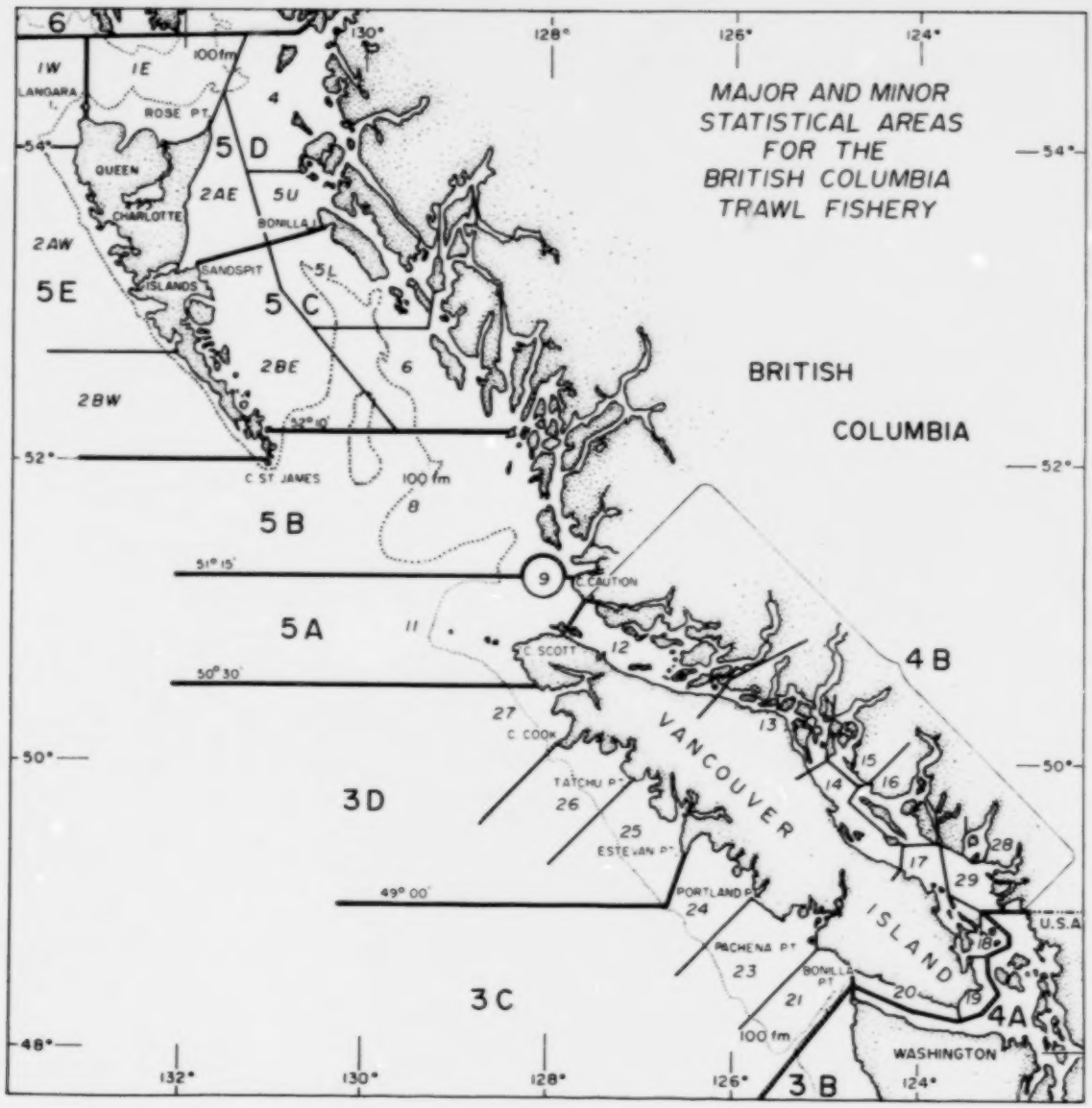
MAJOR AND MINOR
STATISTICAL AREAS
FOR THE
BRITISH COLUMBIA
TRAWL FISHERY
BRITISH
COLUMBIA
VANCOUVER
ISLAND
6
1W
1E
LANGARA I.
ROSE PT.
QUEEN
CHARLOTTE
ISLANDS
SANDSPIT
BONILLA I.
5D
5U
5L
5C
5E
2AE
2AW
2BE
2BW
4
6
8
9
11
12
13
14
15
16
17
18
19
20
21
23
24
25
26
27
28
29
C. ST JAMES
C. CAUTION
C. SCOTT
C. COOK
TATCHU PT.
ESTEVAN PT.
PORTLAND PT.
PACHENA PT.
BONILLA PT.
100 fm
5B
5A
4B
4A
3D
3C
3B
U.S.A.
WASHINGTON
54°
52°
50°
48°
132°
130°
128°
126°
124°
51° 15'
50° 30'
49° 00'

Fig. 1

areas are used by the Pacific Marine Fisheries Commission in their annual summaries of catch statistics. Figure 1 illustrates the major statistical areas off British Columbia and gives their numerical designation. The following is a complete description of the boundaries of these areas.

AREA 3B--NORTHWEST WASHINGTON COAST

From latitude 47°20'N to a line bearing 220° True from the mid-point of the Bonilla-Tatoosh line and crossing said parallel of latitude. This area includes the Quillayute and Umatilla Reef grounds and the shallow waters off Cape Flattery.

AREA 3C--SOUTHWEST COAST VANCOUVER ISLAND

From the northern boundary of Area 3B to a line bearing 200° True from Estevan Point southward to the 49° parallel of latitude, thence westward along said parallel. This area includes the Cape Flattery Spit, the Swiftsure Bank, La Pérouse Bank (Big Bank or 40 mile Bank), the Cabbage Patch, the Firing Range, the Lennard Island and Sydney Inlet grounds, and the inshore waters of Barkley Sound.

AREA 3D--NORTHWEST COAST VANCOUVER ISLAND

From the northern boundary of Area 3C to latitude 50°30'N. This area includes the Nootka, Esperanza, and Kyuquot grounds as well as the Estevan Deep.

AREA 4A--PUGET SOUND

The United States territorial waters inside the Bonilla-Tatoosh line including the Juan de Fuca Strait and Puget Sound. No Canadian catch from this area.

AREA 4B--STRAIT OF GEORGIA

The Canadian waters from the Bonilla-Tatoosh line inside to a line drawn north and south (Mag.) through Pine Island at the upper end of Queen

Charlotte Strait. This area, defined simply as the Strait of Georgia, includes all Canadian inshore grounds of Juan de Fuca Strait, Johnstone and Queen Charlotte Straits, and Georgia Strait.

AREA 5A--SOUTH QUEEN CHARLOTTTE SOUND

From the northern boundaries of Areas 4B and 3D to latitude 51°15'N. This area includes all grounds incorporated in the Cape Scott Bank and a portion of the grounds in the gully between the Cape Scott Bank and the Goose Island Bank. It also includes catches from the Virgin Rocks ground.

AREA 5B--NORTH QUEEN CHARLOTTE SOUND

From latitude 51°15'N to latitude 52°00'N on the westward side of Cape St. James and from latitude 51°15'N to latitude 52°10'N on the eastward side of Cape St. James. This area includes all grounds associated with the Goose Island Bank and the remaining portion of the grounds in the gully between the Goose Island Bank and the Cape Scott Bank.

AREA 5C--SOUTH HECATE STRAIT

From latitude 52°10'N to a line drawn from Spit Point (Sandspit) on Moresby Island to the southern tip of Bonilla Island. This area includes the grounds known as the "Horseshoe" and the "Ole Spot" in the central region of the Strait.

AREA 5D--NORTH HECATE STRAIT

From the northern boundary of Area 5C to latitude 54°40'N, limited to the westward by longitude 133°W across Dixon Entrance. This area includes the Two Peaks ground (northeast of Rose Spit), the Butterworth-Warrior edge, the Fingers (southwest of Archibald Island), the Oval Hill ground, the White Rock ground (northwest of Bonilla Island), the Skidegate Inlet ground, the Fife Point ground, the southwest Seal Rocks ground, and grounds in Dixon Entrance.

AREA 5E--WEST COAST QUEEN CHARLOTTE ISLANDS

From latitude 52°00'N to 54°40'N, limited to the eastward by longitude 133°W across Dixon Entrance.

AREA 6--ALASKA

Encompasses waters bounded on the south by latitude 54°40'N and on the west by longitude 147°W.

MINOR STATISTICAL AREA DIVISIONS

Minor areas are used to give more detailed information on region of capture of groundfish. They are areas within major areas and are basically the former Fisheries Management statistical areas with some modifications. Figure 2 illustrates the areas, the modifications are catalogued below:

1. Minor Area 101 has been divided into two minor areas, 1E and 1W. This boundary lies along longitude 133°W.

2. Minor Area 142 has been divided into two minor areas, 2AW and 2BW. This boundary lies along 52°40'N latitude.

3. The boundary between Area 102 and Area 104 has been shifted northwestward to Rose Spit. Area 4 was expanded to bring the whole of the "Two Peaks" and "Dundas" grounds within Area 4. This has meant the elimination of Areas 103 and 3xy.

4. Minor Area 105 has been divided into two sub-areas, designated 5U and 5L, this boundary lies along the Sandspit-Bonilla Island line, which is the internationally agreed line of division between north and south Hecate Strait (Areas 5D and 5C).

5. The boundary between Areas 5D and 5C has been continued through Area 102 to divide it into two minor areas, 2AE and 2BE.

6. The southern boundary of Areas 102 and 106 has been shifted to lie along 52°10'N latitude to conform with the boundary between Areas 5C and 5B.

7. Area 8 has been expanded to include the whole of the Goose Island Bank. This has involved (a) shifting the northern boundary to 52°10'N latitude and eliminating Area 107, (b) shifting the southern boundary to 51°15'N latitude and eliminating Areas 109 and 110, and (c) the elimination of Area 130, previously used for offshore catches in Queen Charlotte Sound. There is, in this report, no westward limit to Area 8.

8. Area 9 has been changed and is now a circle 12 mi in diameter surrounding the Sea Otter group and the Virgin Rocks ground. It is considered to be part of Area 5A.

9. Area 11 has been expanded to include all of the Cape Scott Bank. This has meant the elimination of Area 111 and the addition of the part of Area 127 lying northward of 50°30'N latitude. This is to conform with the boundary between Areas 5A and 3D.

10. The western limit of area 12 is now Bates Passage.

11. Areas 21, 23, 24, 25, 26, and 27 have been expanded to include Areas 121, 123, 124, 125, 126, and 127, respectively.

12. The boundary between Areas 24 and 25 has been shifted to lie along the boundary between Areas 3C and 3D.

13. The boundary between Areas 23 and 24 has been shifted northwards to Portland Point and it lies on a bearing of 225° True. This is to bring the whole of the ground known as Firing Range (which formerly lay on the boundary between these two areas) entirely within Area 23.

All other minor areas remain the same as those defined by the Fisheries Management Statistical Chart.

The following shows the relationship between the major and the minor areas:

Major areas		Minor areas
6	Alaska	Southeastern, Yakutat[1]
5E	West Coast Queen Charlotte Islands	1W, 2AW, 2BW
5D	North Hecate Strait	1E, 2AE, 4, 5U
5C	South Hecate Strait	2BE, 5L, 6
5B	North Queen Charlotte Sound	8
5A	South Queen Charlotte Sound	9, 11
3D	Northwest Coast Vancouver Island	27, 26, 25
3C	Southwest Coast Vancouver Island	24, 23, 21
3B	Northwest Washington Coast	"C"
4B	Strait of Georgia[2]	12, 13, 14, 15, 16, 17, 18, 19, 20, 28, 29

[1]Southeastern - from 54°40'N to 137°W. Yakutat from 137°W to 147°W.
[2]Including Johnstone and Queen Charlotte straits and the Canadian portion of the Strait of Juan de Fuca.

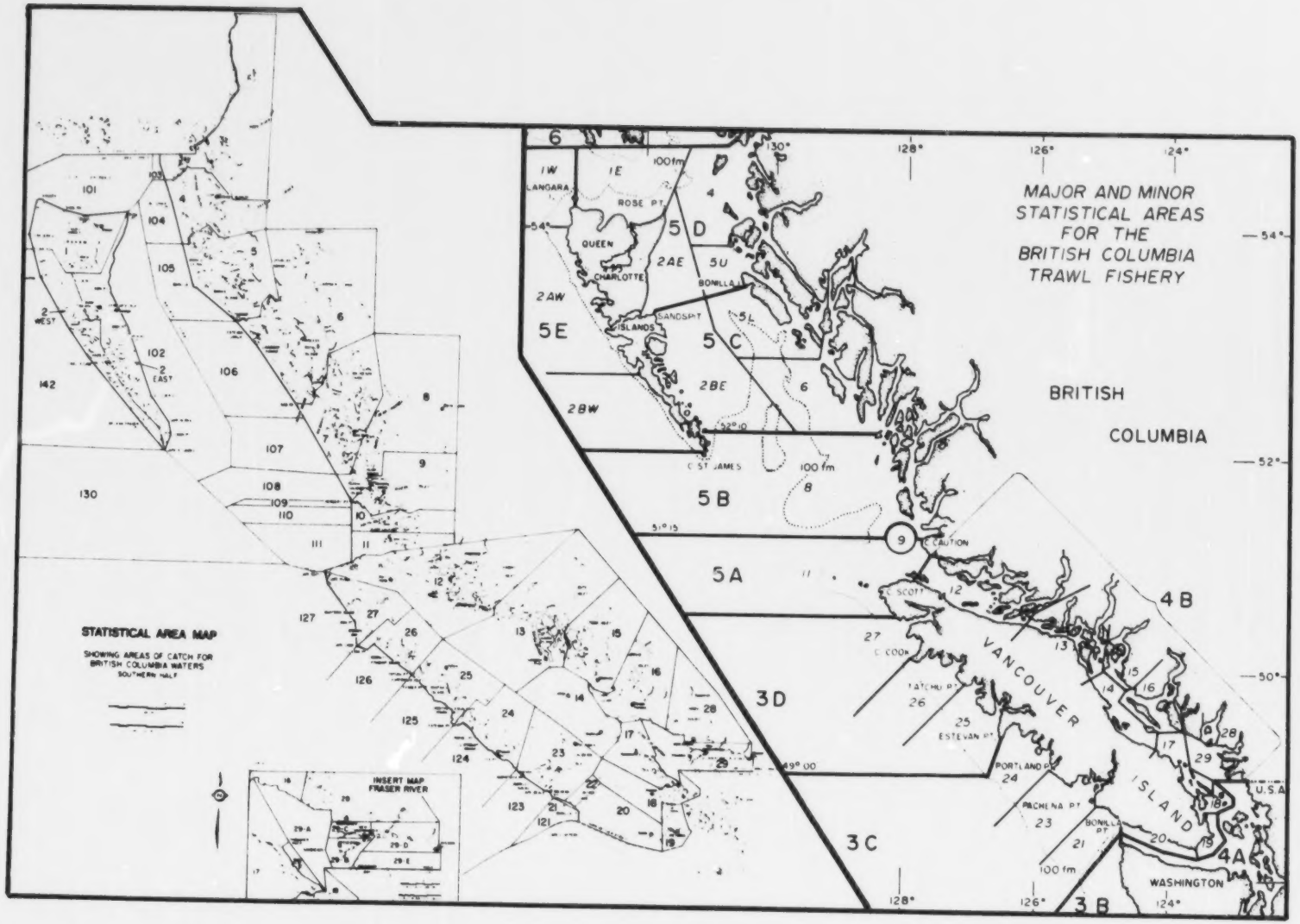
MAJOR AND MINOR STATISTICAL AREAS FOR THE BRITISH COLUMBIA TRAWL FISHERY
BRITISH COLUMBIA
STATISTICAL AREA MAP
SHOWING AREAS OF CATCH FOR BRITISH COLUMBIA WATERS SOUTHERN HALF
INSERT MAP FRASER RIVER
VANCOUVER ISLAND
QUEEN CHARLOTTE ISLANDS
ROSE PT.
LANGARA
SANDSPT
BONILLA
CAPE ST JAMES
CAPE SCOTT
CAPE COOK
CAPE CAUTION
PORTLAND PT.
PACHENA PT.
ESTEVAN PT.
WASHINGTON
U.S.A.
100 fm
5E
5D
5C
5B
5A
3D
3C
3B
4B
4A
2AW
2AE
2BW
2BE
5U
5L
1W
1E
130°
128°
126°
124°
54°
52°
50°
49° 00
51° 15
52° 10

Fig. 2

DOMESTIC TRAWL FISHERY

In 1986, catch and effort data were collected by port liaison officers for 80%, by weight, of the total trawl landings. Through the cooperation of the Statistics Division, Fisheries Branch, the remaining 20% of the landings were recorded from sales slips, from which no effort (hours fished) is available. Catch-per-unit-effort (CPUE) statistics obtained from the interview data were used to estimate the effort expended for the catch reported on these sales slips.

From total landed catch and total estimated effort data, an average CPUE (t/h) was calculated for each major fishing area. Also calculated was the percentage of total catch and effort expended in each of these areas. These last two statistics show relative importance of each area and are used in the calculation of the "success ratio". This parameter is defined as the percent of the total catch divided by the percent of the total effort.

Total landings in 1986 (excluding dumped[3] and discarded[4] fish) by the British Columbia domestic trawl fleet were 44,688 t, 16% above the total for 1985. Effort expended decreased 6% to 34,943 hours resulting in an overall CPUE of 1.279 t/h, 23% above the 1985 rate.

Hake was the strongest contributor to the trawl fishery with landings of 6,802 t, a 12% increase from 1985. Total rockfish landings were 23,485 t and accounted for 53% of the total trawl landings. Trawl catch of Pacific cod at 3,637 t rose 56% from 1985. Yellowtail rockfish landings totalled 4,458 t and were more than triple those of the previous year. There were also marked increases in landings of dogfish (2,342 t), Dover sole (1,167 t) and turbot (895 t). Pollock (577 t) and lingcod (2,924 t) landings dropped 70% and 40% respectively from 1985 landings. There were also marked decreases in landings of canary rockfish (1,157 t), English sole (452 t) and rex sole (87 t).

Annual trawl catch and effort data are shown in Tables 2-7. Landings by major area, month, and species are presented in Tables 8-15. Landings by minor area, month and species are given in Tables 16-42.

AREA 4B--STRAIT OF GEORGIA

There was a 28% increase in the amount of effort (5,664 h) expended

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[3]Fish caught and retained but eventually rejected at the plant as being unsuitable for any utilization.

[4]Fish caught and discarded at sea by fishermen.

in this area with only a small increase in landings (6,972 t), resulting in a decreased CPUE of 1.231 t/h. Hake accounted for 72% of the catch. Pacific cod, pollock, and dogfish were the other main species caught.

AREA 3C--SOUTHWEST COAST OF VANCOUVER ISLAND

There was a 44% decline in the amount of effort (5,235 h) expended but a 65% rise in the level of CPUE (1.403 t/h). Dogfish and hake were the major species caught from this area. Lingcod landings were the third highest even though they decreased 76% from the previous year.

3D--NORTHWEST COAST OF VANCOUVER ISLAND

This area contributed 21% of the total British Columbia trawl production, with substantial increases in catch (9,206 t), effort (5,766 h) and CPUE (1.597 t/h). Rockfish landings of 8,633 t, of which yellowtail rockfish (3,083 t), Pacific ocean perch (1,180 t), yellowmouth rockfish (974 t), redstripe rockfish (909 t), and silvergray rockfish (868 t) were the dominant species, accounted for 94% of the total.

AREA 5A--SOUTH QUEEN CHARLOTTE SOUND

Total landings (3,353 t) and CPUE (0.794 t/h) showed increases, 52% and 42% respectively, from the previous year. Lingcod, silvergray rockfish, Pacific ocean perch, redstripe rockfish, and yellowtail rockfish were the major species caught from this area.

AREA 5B--NORTH QUEEN CHARLOTTE SOUND

Total catch (4,084 t), effort (4,441 h) and CPUE (0.920 t/h) were at lower levels than in 1985. Lingcod landings (1,011 t) were more than double those of the previous year while Pacific ocean perch landings (791 t) were less than half of the 1985 level. The other main species taken were silvergray rockfish and yellowtail rockfish.

AREA 5C--SOUTH HECATE STRAIT

Total landings (1,461 t), effort (1,553 h) and CPUE (0.941 t/h) all showed decreases from 1985. Silvergray rockfish, Pacific cod, and Pacific ocean perch were the main species landed from this area.

AREA 5D--NORTH HECATE STRAIT

Both total landings (3,858 t) and total effort (3,755 h) showed decreases, 16% and 34% respectively. This resulted in an overall increase of 26% in CPUE (1.028 t/h). Pacific cod landings of 1,747 t were more than double the 1985 level, and represented 45% of the landings from this area. Dover sole was the other main species caught.

AREA 5E--WEST COAST OF QUEEN CHARLOTTE ISLANDS

Total landings (8,407 t) and effort (4,307 h) showed increases from 1985, resulting in approximately the same level of CPUE (1.952 t/h). Total rockfish landings of 7,640 t accounted for 92% of the total catch of which Pacific ocean perch (3,361 t), redstripe rockfish (1,395 t), yellowmouth rockfish (1,167 t), rougheye rockfish (730 t), and silvergray rockfish (467 t) were the dominant species.

The following species were observed in trawl landings in British Columbia in 1986.

Family and common name	Scientific name
Fishes	
Acipenseridae	
Green sturgeon	Acipenser medirostris Ayres
Anarhichadidae	
Wolf-eel	Anarrhichthys ocellatus Ayres
Anoplopomatidae	
Sablefish	Anoplopoma fimbria (Pallas)
Clupeidae	
American shad	Alosa sapidissima (Wilson)
Embiotocidae	
Pile perch	Rhacochilus vacca (Girard)
Gadidae	
Pacific cod, true cod or gray cod	Gadus macrocephalus Tilesius
Pacific hake	Merluccius productus (Ayres)
Walleye pollock	Theragra chalcogramma (Pallas)
Hexagrammidae	
Lingcod	Ophiodon elongatus Girard
Hexanchidae	
Sixgill shark	Hexanchus griseus (Bonnaterre)
Pleuronectidae	
Arrowtooth flounder or turbot	Atheresthes stomias (Jordan and Gilbert)
Petrale sole	Eopsetta jordani (Lockington)
Rex sole	Glyptocephalus zachirus Lockington
Flathead sole	Hippoglossoides elassodon Jordan and Gilbert
Rock sole	Lepidopsetta bilineata (Ayres)
Dover sole	Microstomus pacificus (Lockington)
English sole	Parophrys vetulus Girard
Starry flounder	Platichthys stellatus (Pallas)
Sand sole	Psettichthys melanostictus Girard
Rajidae	
Big skate	Raja binoculata Girard
Longnose skate	Raja rhina Jordan and Gilbert

Family and common name	Scientific name
Scorpaenidae	
Rougheye rockfish	Sebastes aleutianus (Jordan and Evermann)
Pacific ocean perch	Sebastes alutus (Gilbert)
Redbanded rockfish	Sebastes babcocki (Thompson)
Shortraker rockfish	Sebastes borealis Barsukov
Silvergray rockfish	Sebastes brevispinis (Bean)
Copper rockfish	Sebastes caurinus Richardson
Dusky rockfish	Sebastes ciliatus (Tilesius)
Darkblotched rockfish	Sebastes crameri (Jordan)
Splitnose rockfish	Sebastes diploproa (Gilbert)
Greenstriped rockfish	Sebastes elongatus Ayres
Widow rockfish	Sebastes entomelas (Jordan and Gilbert)
Yellowtail rockfish	Sebastes flavidus (Ayres)
Rosethorn rockfish	Sebastes helvomaculatus Ayres
Quillback rockfish	Sebastes maliger (Jordan and Gilbert)
Black rockfish	Sebastes melanops Girard
Tiger rockfish	Sebastes nigrocinctus Ayres
Bocaccio	Sebastes paucispinis Ayres
Canary rockfish	Sebastes pinniger (Gill)
Redstripe rockfish	Sebastes proriger (Jordan and Gilbert)
Yellowmouth rockfish	Sebastes reedi (Westrheim and Tsuyuki)
Yelloweye rockfish	Sebastes ruberrimus (Cramer)
Harlequin rockfish	Sebastes variegatus Quast
Sharpchin rockfish	Sebastes zacentrus (Gilbert)
Shortspine thornyhead	Sebastolobus alascanus Bean
Squalidae	
Spiny dogfish	Squalus acanthias Linnaeus
INVERTEBRATES	
Cancridae	
Dungeness crab	Cancer magister Dana
Octopoda	
Octopus or devilfish	Octopus sp.
Pectinidae	
Scallop	Scallop sp.
Teuthoidea	
Squid	Loligo opalescens Berry

Table 2. Total catch (t) (excludes dumped and discarded fish) and related effort[a] (h) for the British Columbia trawl fleet in 1986.

	Major area									
	4B		3C		3D		5A		5B	
Month	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
January	140.46	424	9.25	10	359.46	140	84.84	39	65.67	19
February	158.05	945	489.19	149	1408.03	759	416.98	224	337.14	201
March	2083.41	654	346.02	244	903.55	465	413.54	227	256.85	103
April	1446.48	315	569.09	324	867.29	626	220.34	253	457.43	282
May	1160.90	461	876.32	708	622.19	702	339.32	607	446.77	674
June	206.28	533	1072.33	1100	637.08	554	361.49	609	582.75	780
July	136.06	291	1148.96	803	558.56	431	452.12	632	867.91	1082
August	91.31	359	556.72	588	160.37	135	295.25	421	283.09	413
September	378.34	580	1039.09	827	204.45	145	218.39	388	462.95	490
October	346.89	458	1100.93	382	1466.67	623	263.57	513	215.12	336
November	650.32	377	79.90	48	1373.26	671	225.21	222	72.22	42
December	173.92	267	58.56	52	644.71	515	62.00	87	35.07	19
Total	6972.42	5664	7346.36	5235	9205.62	5766	3353.05	4222	4083.97	4441
CPUE (t/h)	1.231		1.403		1.597		0.794		0.920	
% catch	15.60		16.44		20.60		7.50		9.14	
% effort	16.21		14.98		16.50		12.08		12.71	
Success ratio	0.96		1.10		1.25		0.62		0.72	

[a]This effort was prorated using the known CPUE obtained from interviews which accounted for 80% of the total catch.

Table 2 (cont'd)

Month	Major area							
	5C		5D		5E		Total	
	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
January	24.78	17	166.13	214	369.81	250	1220.40	1113
February	131.65	121	189.68	327	1040.38	441	4171.10	3167
March	180.72	199	306.44	354	1113.19	333	5603.72	2579
April	49.78	119	644.01	584	789.48	407	5043.90	2910
May	227.58	319	496.73	532	2120.43	1047	6290.24	5050
June	110.65	244	782.26	583	1257.35	859	5010.19	5262
July	54.00	74	525.65	383	345.20	221	4088.46	3917
August	-	-	227.71	178	213.64	106	1829.09	2200
September	-	-	182.08	193	451.41	285	2936.71	2908
October	150.55	100	183.77	191	375.37	255	4102.87	2858
November	440.04	317	118.90	147	275.08	84	3234.93	1908
December	91.52	43	34.99	69	55.68	19	1156.45	1071
Total	1461.27	1553	3858.35	3755	8407.02	4307	44688.06	34943
CPUE (t/h)	0.941		1.028		1.952		1.279	
% catch	3.27		8.64		18.81			
% effort	4.44		10.75		12.33			
Success ratio	0.74		0.80		1.53			

Table 3. Total British Columbia trawl landings (t) by main species and major area in 1986 (excluding dumped and discarded fish).

Species	Major area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
English sole	24.45	54.25	6.83	9.03	24.47	12.69	320.36	-	452.08
Rock sole	0.69	68.17	5.29	23.25	134.39	86.22	132.52	3.51	454.04
Petrale sole	3.21	197.23	24.22	89.94	30.49	15.13	9.79	45.68	415.69
Dover sole	12.03	60.85	15.94	33.22	16.02	10.27	684.97	333.35	1,166.65
Rex sole	-	0.27	0.08	0.02	0.06	0.53	74.67	11.13	86.76
Starry flounder	7.58	9.23	-	0.01	-	-	37.50	0.07	54.39
Turbot	2.23	295.49	23.78	191.99	16.03	5.38	346.34	13.59	894.83
Other flatfish[a]	119.91	78.93	7.59	5.94	-	0.73	0.76	-	213.86
Pacific cod	802.94	423.95	73.98	174.41	66.65	337.99	1,746.77	10.06	3,636.75
Lingcod	44.48	834.32	245.78	639.64	1,010.62	52.78	83.20	13.09	2,923.91
Sablefish	1.62	299.97	65.44	6.80	3.16	1.62	34.37	130.21	543.19
Pollock	469.28	3.39	-	2.79	5.60	0.16	94.03	2.22	577.47
Hake	5,030.88	1,770.19	0.81	-	-	-	-	-	6,801.88
Pacific ocean perch	0.06	107.73	1,180.38	363.54	791.21	101.71	8.29	3,361.14	5,914.06
Other rockfish[a]	45.56	1,355.30	7,452.66	1,675.58	1,897.53	805.30	60.68	4,278.68	17,571.29
Misc. species[a]	14.03	13.87	0.80	6.24	45.43	5.44	119.51	3.86	209.18
Dogfish	391.04	1,770.33	65.14	104.79	0.25	1.31	8.64	0.28	2,341.78
Animal food[a]	0.34	-	3.40	0.15	30.04	20.23	95.34	105.71	255.21
Reduction[a]	2.09	2.89	33.50	25.71	12.02	3.78	0.61	94.44	175.04
Total	6,972.42	7,346.36	9,205.62	3,353.05	4,083.97	1,461.27	3,858.35	8,407.02	44,688.06
Effort	5,664	5,235	5,766	4,222	4,441	1,553	3,755	4,307	34,943

[a]Refer to Table 6 for breakdown by species.

Table 4. British Columbia midwater trawl[a] landings (t) by species and major area in 1986.

Species	Major area					Total
	4B	3C	3D	5A	5D	
English sole	-	-	-	-	0.01	0.01
Turbot	-	-	-	-	0.04	0.04
Pacific cod	-	-	1.83	-	0.01	1.84
Lingcod	-	-	0.33	-	0.02	0.35
Pollock	456.85	-	-	-	67.95	524.80
Hake	5,029.08	1,770.11	-	-	-	6,799.19
Other rockfish	19.32	230.87	2,765.26	17.47	12.46	3,045.38
Dogfish	169.92	28.48	-	-	-	198.40
Animal food	-	-	-	-	0.33	0.33
Reduction	2.09	-	-	-	-	2.09
Total	5,677.26	2,029.46	2,767.42	17.47	80.82	10,572.43

[a]These midwater trawl catches are included in all the trawl tables in this report.

Table 5. British Columbia midwater[a] trawl landings (t) and related effort[b] (h) in 1986.

	Major area											
	4B		3C		3D		5A		5D		Total	
Month	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
January	5.36	5	-	-	74.01	7	-	-	78.06	70	157.43	82
February	36.25	11	-	-	117.26	30	-	-	-	2	153.51	43
March	1988.76	287	31.74	6	18.33	14	17.47	13	-	-	2056.30	320
April	1420.13	201	-	-	-	-	-	-	-	-	1420.13	201
May	1075.92	97	-	-	-	-	-	-	-	-	1075.92	97
June	131.21	29	-	-	-	-	-	-	-	-	131.21	29
July	67.06	12	592.40	38	-	-	-	-	-	-	659.46	50
August	-	-	190.81	28	-	-	-	-	-	-	190.81	28
September	228.17	13	391.75	72	-	-	-	-	-	-	619.92	85
October	213.81	50	807.59	81	1074.68	287	-	-	-	-	2096.08	418
November	439.20	106	15.17	2	993.58	367	-	-	2.76	6	1450.71	481
December	71.39	23	-	-	489.56	400	-	-	-	-	560.95	423
Total	5677.26	834	2929.46	227	2767.42	1105	17.47	13	80.82	78	10,572.43	2257

[a]Midwater trawl catch and effort are included in all the trawl tables in this report.

[b]This effort was prorated using the known CPUE obtained from interviews which accounted for 80% of the midwater trawl catch.

Table 6. Species landed (t) as "other flatfish", "other rockfish", "miscellaneous species", "animal food", and "reduction" by major area in 1986.

Species	Major area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
Other flatfish									
Flathead sole	2.84	-	-	-	-	-	-	-	2.84
Sand sole	2.43	-	-	-	-	-	-	-	2.43
Unspecified	114.64	78.93	7.59	5.94	-	0.73	0.76	-	208.59
Total	119.91	78.93	7.59	5.94	-	0.73	0.76	-	213.86
Other rockfish									
Black rockfish	-	-	-	-	-	-	0.03	-	0.03
Bocaccio	0.43	81.49	219.89	156.99	194.78	22.84	10.84	6.37	693.63
Canary rockfish	0.08	201.25	521.02	96.24	183.78	44.05	0.38	110.49	1157.29
Copper rockfish	-	-	-	-	-	-	0.12	-	0.12
Darkblotched r'fish	-	-	1.09	0.30	-	1.13	-	33.80	36.32
Dusky rockfish	-	-	-	-	-	-	-	1.47	1.47
Greenstriped r'fish	-	0.49	0.69	-	-	2.64	-	0.05	3.87
Harlequin rockfish	-	-	-	-	-	-	-	25.24	25.24
Quillback rockfish	0.53	-	-	-	0.12	0.04	1.63	0.35	2.67
Redbanded rockfish	-	0.08	23.17	12.58	32.64	8.28	6.19	8.08	91.02
Redstripe rockfish	-	277.05	909.42	360.70	79.99	52.30	0.14	1395.11	3074.71
Rosethorn rockfish	-	-	0.02	-	-	0.84	-	0.04	0.90
Rougheye rockfish	-	0.59	11.82	13.68	2.58	0.18	-	729.61	758.46
Sharpchin rockfish	-	8.38	51.11	15.65	10.69	1.45	-	157.52	244.80
Shortraker r'fish	-	-	-	4.86	2.20	-	-	10.29	17.35
Shortspine thornyhead	-	0.67	9.59	1.42	0.72	0.69	6.91	64.15	84.15
Silvergray r'fish	-	224.55	868.22	408.82	779.95	582.34	10.28	466.81	3340.97
Splitnose r'fish	-	0.08	26.61	3.07	0.22	0.23	-	1.62	31.83
Tiger rockfish	-	-	-	-	-	-	0.01	-	0.01
Widow rockfish	0.02	41.04	708.79	23.63	17.99	5.74	-	52.93	850.14
Yelloweye r'fish	-	-	1.13	0.51	1.71	3.22	0.03	4.44	11.04
Yellowmouth r'fish	-	0.78	973.51	227.15	91.39	7.79	-	1166.83	2467.45
Yellowtail r'fish	20.02	429.87	3082.59	330.20	498.39	70.55	19.03	7.36	4458.01
Unspecified	24.48	88.98	43.99	19.78	0.38	0.99	5.09	36.12	219.81
Total	45.56	1355.30	7452.66	1675.58	1897.53	805.30	60.68	4278.68	17,571.29

Table 6 (cont'd)

Species	Major area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
Miscellaneous species									
Octopus	1.42	0.59	0.06	0.20	0.46	0.22	2.00	0.01	4.96
Perch	0.83	0.35	0.05	-	-	-	-	-	1.23
Scallop	0.01	-	-	-	-	-	-	-	0.01
Shad	0.05	-	-	-	-	-	-	-	0.05
Shark	0.19	0.04	0.02	0.02	-	-	-	-	0.27
Skate wings	11.32	11.80	0.01	5.92	44.97	5.22	117.38	1.89	198.51
Squid	0.20	0.02	0.23	0.03	-	-	0.13	1.96	2.57
Sturgeon	-	0.27	0.43	0.06	-	-	-	-	0.76
Wolf-eel	0.01	0.37	-	-	-	-	-	-	0.38
Unspecified	-	0.43	-	0.01	-	-	-	-	0.44
Total	14.03	13.87	0.80	6.24	45.43	5.44	119.51	3.86	209.18
Animal food									
Dover sole	-	-	-	-	-	-	4.50	2.61	7.11
English sole	-	-	-	-	-	-	2.03	-	2.03
Ocean perch	-	-	-	-	2.88	4.86	-	4.56	12.30
Other rockfish	-	-	-	-	1.84	3.23	-	19.72	24.79
Pacific cod	-	-	-	-	-	-	13.50	-	13.50
Pollock	-	-	-	-	-	-	1.00	0.54	1.54
Rex sole	-	-	-	-	-	-	3.17	0.22	3.39
Rock sole	-	-	-	-	0.36	-	-	-	0.36
Sablefish	-	-	-	-	-	0.51	8.12	-	8.63
Turbot	-	-	-	-	-	-	21.13	3.24	24.37
Unspecified	0.34	-	3.40	0.15	24.96	11.63	41.89	74.82	157.19
Total	0.34	-	3.40	0.15	30.04	20.23	95.34	105.71	255.21

Table 6 (cont'd)

Species	Major area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
Reduction									
Dogfish	2.09	-	-	0.05	-	-	-	-	2.14
Dover sole	-	-	-	-	0.94	-	-	4.74	5.68
Hake	-	2.57	0.86	-	-	-	-	-	3.43
Lingcod	-	-	-	-	1.36	-	-	-	1.36
Ocean perch	-	-	-	-	-	-	-	1.58	1.58
Other rockfish	-	-	17.94	11.16	-	2.60	-	78.41	110.11
Skate	-	-	-	-	-	-	0.24	-	0.24
Turbot	-	-	-	-	-	-	-	0.47	0.47
Unspecified	-	0.32	14.70	14.50	9.72	1.18	0.37	9.24	50.03
Total	2.09	2.89	33.50	25.71	12.02	3.78	0.61	94.44	175.04

Table 7. British Columbia trawl landings (t) by species and minor area in 1986.

Species	Minor area					
	12	13	14	16	17	18
English sole	2.82	-	0.18	-	11.24	0.08
Rock sole	-	0.09	0.13	-	0.43	-
Petrale sole	-	-	0.06	-	0.57	0.01
Dover sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Flathead sole	2.84	-	-	-	-	-
Sand sole	2.43	-	-	-	-	-
Turbot	-	-	-	-	0.04	0.03
Starry flounder	4.73	-	-	-	2.07	0.14
Other flatfish	-	-	5.60	-	49.66	33.00
Pacific cod	0.37	5.48	169.54	-	31.20	125.52
Lingcod	-	-	0.91	-	0.42	3.39
Sablefish	-	-	1.25	-	-	0.01
Pollock	-	-	-	293.48	-	11.77
Pacific ocean perch	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	0.08	-	-	-
Redstripe r'fish	-	-	-	-	-	-
Rougheye r'fish	-	-	-	-	-	-
Silvergray r'fish	-	-	-	-	-	-
Yellowmouth r'fish	-	-	-	-	-	-
Yellowtail r'fish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	0.02
Other rockfish	0.02	0.08	0.97	-	4.27	4.94
Hake	-	-	1209.44	138.15	1158.10	1.26
Octopus	-	0.01	-	-	0.03	0.35
Perch	-	-	0.01	-	-	0.74
Skate	1.09	-	0.82	-	0.47	3.39
Squid	-	-	-	-	-	0.20
Sturgeon	-	-	-	-	-	-
Misc. species	-	-	0.01	-	-	-
Dogfish	-	58.09	22.68	-	35.86	81.86
Reduction	-	-	-	-	2.09	-
Animal food	-	-	-	-	-	0.34
Total	14.30	63.75	1411.68	431.63	1296.45	267.05
Crab	-	-	-	-	-	-
Dumped fish	-	-	-	-	-	-
Discards	0.23	27.22	-	6.35	0.29	4.08

Table 7 (cont'd)

Species	Minor area					
	19	20	29	21	23	24
English sole	-	10.13	-	6.83	38.70	8.72
Rock sole	0.04	-	-	10.68	42.84	14.65
Petrale sole	0.15	2.35	0.07	19.51	151.29	26.43
Dover sole	-	12.03	-	4.05	37.04	19.76
Rex sole	-	-	-	-	-	0.27
Flathead sole	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-
Turbot	1.82	0.34	-	21.93	223.56	50.00
Starry flounder	0.08	-	0.56	0.80	3.59	4.84
Other flatfish	7.25	12.20	6.93	41.45	34.63	2.85
Pacific cod	416.40	54.16	0.27	148.61	267.37	7.97
Lingcod	30.78	8.98	-	28.49	730.43	75.40
Sablefish	0.26	0.10	-	67.02	207.99	24.96
Pollock	0.32	0.35	163.36	2.18	1.21	-
Pacific ocean perch	-	0.06	-	7.23	68.53	31.97
Bocaccio	-	0.43	-	11.71	56.58	13.20
Canary rockfish	-	-	-	8.10	126.70	66.45
Redstripe r'fish	-	-	-	58.75	174.30	44.00
Rougheye r'fish	-	-	-	-	0.59	-
Silvergray r'fish	-	-	-	24.18	174.57	25.80
Yellowmouth r'fish	-	-	-	-	-	0.78
Yellowtail r'fish	-	20.02	-	112.22	277.99	39.66
Widow rockfish	-	-	-	2.70	32.44	5.90
Other rockfish	1.39	13.31	0.03	17.57	60.50	20.61
Hake	0.06	227.47	2296.40	1048.35	721.84	-
Octopus	0.78	0.25	-	0.41	0.07	0.11
Perch	-	-	0.08	0.35	-	-
Skate	3.93	1.54	0.08	4.95	6.54	0.31
Squid	-	-	-	-	-	0.02
Sturgeon	-	-	-	0.02	0.18	0.07
Misc. species	0.23	0.02	-	0.67	0.17	-
Dogfish	4.36	24.31	163.88	69.21	1692.08	9.04
Reduction	-	-	-	-	2.89	-
Animal food	-	-	-	-	-	-
Total	467.85	388.05	2631.66	1717.97	5134.62	493.77
Crab	-	-	-	-	-	-
Dumped fish	-	-	-	-	-	-
Discards	2.04	-	5.44	125.65	202.08	4.54

Table 7 (cont'd)

Species	Minor area					
	25	26	27	9	11	8
English sole	4.79	1.64	0.40	-	9.03	24.47
Rock sole	0.10	2.69	2.50	0.31	22.94	134.39
Petrale sole	8.80	4.42	11.00	0.05	89.89	30.49
Dover sole	6.00	0.35	9.59	1.06	32.16	16.02
Rex sole	-	0.08	-	-	0.02	0.06
Flathead sole	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-
Turbot	21.84	0.29	1.65	-	191.99	16.03
Starry flounder	-	-	-	-	0.01	-
Other flatfish	6.91	0.59	0.09	-	5.94	-
Pacific cod	19.36	41.17	13.45	0.14	174.27	66.65
Lingcod	97.84	88.61	59.33	1.23	638.41	1010.62
Sablefish	5.29	0.45	59.70	-	6.80	3.16
Pollock	-	-	-	-	2.79	5.60
Pacific ocean perch	134.43	11.27	1034.68	12.93	350.61	791.21
Bocaccio	104.42	48.04	67.43	0.21	156.78	194.78
Canary rockfish	305.56	82.76	132.70	-	96.24	183.78
Redstripe r'fish	237.68	13.33	658.41	-	360.70	79.99
Rougheye r'fish	-	-	11.82	-	13.68	2.58
Silvergray r'fish	381.97	152.92	333.33	-	408.82	779.95
Yellowmouth r'fish	2.11	-	971.40	-	227.15	91.39
Yellowtail r'fish	2405.05	422.24	255.30	-	330.20	498.39
Widow rockfish	474.25	50.07	177.47	-	23.63	17.99
Other rockfish	17.44	14.01	125.95	2.93	55.24	48.68
Hake	-	-	0.81	-	-	-
Octopus	0.02	0.02	0.02	-	0.20	0.46
Perch	-	0.05	-	-	-	-
Skate	0.01	-	-	-	5.92	44.97
Squid	0.01	-	0.22	-	0.03	-
Sturgeon	-	0.42	0.01	-	0.06	-
Misc. species	-	0.02	-	-	0.03	-
Dogfish	17.96	35.09	12.09	-	104.79	0.25
Reduction	1.11	-	32.39	-	25.71	12.02
Animal food	-	-	3.40	-	0.15	30.04
Total	4252.95	977.53	3975.14	18.86	3334.19	4083.97
Crab	-	-	-	-	-	-
Dumped fish	-	-	-	-	-	-
Discards	17.23	0.91	50.58	-	57.92	216.04

Table 7 (cont'd)

Species	Minor area					
	2BE	5L	6	1E	4	5u
English sole	5.84	6.77	0.08	7.06	266.11	47.19
Rock sole	84.61	1.61	-	40.66	83.66	8.20
Petrale sole	12.18	2.85	0.10	1.28	2.08	6.43
Dover sole	9.54	0.73	-	0.83	648.66	35.48
Rex sole	0.26	0.27	-	0.33	71.65	2.69
Flathead sole	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-
Turbot	2.71	2.67	-	15.58	314.26	16.50
Starry flounder	-	-	-	4.57	32.66	0.27
Other flatfish	0.73	-	-	-	0.31	0.45
Pacific cod	223.60	114.39	-	139.62	1056.22	550.93
Lingcod	48.30	4.48	-	11.47	64.64	7.09
Sablefish	1.52	0.05	0.05	-	20.45	13.92
Pollock	0.16	-	-	0.22	93.58	0.23
Pacific ocean perch	101.71	-	-	2.71	5.54	0.04
Bocaccio	18.77	3.16	0.91	-	0.04	10.80
Canary rockfish	44.05	-	-	0.12	0.17	0.09
Redstripe r'fish	48.60	1.76	1.94	0.14	-	-
Rougheye r'fish	0.18	-	-	-	-	-
Silvergray r'fish	557.56	24.78	-	1.20	6.96	2.12
Yellowmouth r'fish	7.79	-	-	-	-	-
Yellowtail r'fish	67.16	0.23	3.16	8.48	10.12	0.43
Widow rockfish	5.74	-	-	-	-	-
Other rockfish	19.11	0.40	-	1.20	18.21	0.60
Hake	-	-	-	-	-	-
Octopus	0.12	0.10	-	0.08	0.93	0.99
Perch	-	-	-	-	-	-
Skate	4.44	0.78	-	12.99	97.77	6.62
Squid	-	-	-	-	0.13	-
Sturgeon	-	-	-	-	-	-
Misc. species	-	-	-	-	-	-
Dogfish	1.31	-	-	0.17	5.77	2.70
Reduction	3.59	0.19	-	-	-	0.61
Animal food	20.23	-	-	3.04	91.87	0.43
Total	1289.81	165.22	6.24	251.75	2891.79	714.81
Crab	-	-	-	-	-	-
Dumped fish	-	-	-	-	6.80	-
Discards	87.75	27.45	-	73.50	481.00	92.21

Table 7 (cont'd)

Species	Minor area			
	1W	2AW	2BW	Total
English sole	-	-	-	452.08
Rock sole	3.51	-	-	454.04
Petrale sole	7.86	37.77	0.05	415.69
Dover sole	203.96	129.38	0.01	1166.65
Rex sole	8.81	2.32	-	86.76
Flathead sole	-	-	-	2.84
Sand sole	-	-	-	2.43
Turbot	4.84	5.18	3.57	894.83
Starry flounder	0.06	0.01	-	54.39
Other flatfish	-	-	-	208.59
Pacific cod	8.00	2.03	0.03	3636.75
Lingcod	9.38	3.62	0.09	2923.91
Sablefish	71.26	58.68	0.27	543.19
Pollock	1.93	0.29	-	577.47
Pacific ocean perch	2722.95	542.13	96.06	5914.06
Bocaccio	3.70	2.67	-	693.63
Canary rockfish	0.29	110.20	-	1157.29
Redstripe r'fish	705.79	689.32	-	3074.71
Rougheye r'fish	460.84	268.35	0.42	758.46
Silvergray r'fish	171.89	293.80	1.12	3340.97
Yellowmouth r'fish	614.98	543.89	7.96	2467.45
Yellowtail r'fish	6.33	1.03	-	4458.01
Widow rockfish	14.59	36.97	1.37	850.14
Other rockfish	288.64	54.19	0.34	770.63
Hake	-	-	-	6801.88
Octopus	0.01	-	-	4.96
Perch	-	-	-	1.23
Skate	1.76	0.13	-	198.51
Squid	1.96	-	-	2.57
Sturgeon	-	-	-	0.76
Misc. species	-	-	-	1.15
Dogfish	0.28	-	-	2341.78
Reduction	27.05	67.39	-	175.04
Animal food	76.44	28.02	1.25	255.21
Total	5417.11	2877.37	112.54	44,688.06
Crab	-	-	-	-
Dumped fish	-	-	-	6.80
Discards	4.31	4.54	0.45	1491.81

Tables of monthly catch (t) by major area.

TABLE 8. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 4B, STRAIT OF GEORGIA.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	4.44	9.19	.14	1.52	3.08	1.69	2.60	1.71			.08		24.45
ROCK S.	.07									.01	.39	.22	.69
PETRALE S.	.09	.32	.17	.08	.57	.55	.21	.41		.81			3.21
DOVER S.				.36	.83	2.24	2.83	1.99		3.78			12.03
REX SOLE													
STARRY FLDR	.58	2.55	1.68	.12								2.65	7.58
TURBOT	.05	.09	.52	.29	.26		.11		.05	.73	.13		2.23
OTHER FLAT.	9.81	11.71	14.54	2.89	4.48	4.84	3.33	3.02	7.14	13.52	18.82	25.81	119.91
PACIFIC COD	85.23	83.84	70.61	18.41	41.49	58.37	47.01	65.96	117.31	105.99	75.41	33.31	802.94
LINGCOD	.30	1.57	.45	.52	1.26	2.66	4.69	6.71	15.43	6.58	4.31		44.48
SABLEFISH					.06	.49	.54	.27	.02	.03	.17	.04	1.62
POLLOCK	9.88	6.43	157.21	1.44							222.34	71.98	469.28
HAKE	.30	18.13	1746.47	1332.68	1076.00	131.31	67.16	.03	227.20	213.86	217.68	.06	5030.88
OCEAN PERCH		.06											.06
OTHER ROCKF.	1.99	20.59	2.48	1.19	3.43	2.55	2.40	6.10	3.53	.27	.36	.67	45.56
MISC. SP.	1.20	1.87	3.04	.72	.61	.53	.47	.69	.87	1.23	1.57	1.23	14.03
DOGFISH	26.52	1.70	86.10	84.17	28.83	1.05	4.71	4.42	6.45	.08	109.06	37.95	391.04
ANIMAL FOOD									.34				.34
REDUCTION				2.09									2.09
TOTAL	140.46	158.05	2083.41	1446.48	1160.90	206.28	136.06	91.31	378.34	346.89	650.32	173.92	6972.42

TABLE 9. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 3C, SOUTHWEST COAST VANCOUVER IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.27	.25	7.24	10.08	16.72	7.09	2.30	4.81	5.45	.04		54.25
ROCK S.		1.33	.61	6.52	5.41	6.61	1.73	17.90	11.75	16.31			68.17
PETRALE S.		10.35	1.66	1.46	22.96	53.18	35.00	26.84	35.73	9.87	.18		197.23
DOVER S.		.52	2.56	.34	1.73	3.73	5.32	21.02	8.77	16.86			60.85
REX SOLE							.27						.27
STARRY FLDR	.02		3.15	5.03	.19	.27	.25	.29	.03				9.23
TURBOT		2.26	.02	.12	3.59	92.64	59.76	38.15	98.09	.86			295.49
OTHER FLAT.	1.10	2.19	3.47	13.36	19.20	13.14	5.17	5.94	10.38	2.85	.35	1.78	78.93
PACIFIC COD	7.39	33.08	4.04	72.17	96.99	81.94	27.24	15.50	31.28	46.50	7.14	.68	423.95
LINGCOD	.27	1.17	3.52	13.83	181.79	184.84	141.76	65.69	196.35	44.07	1.03		834.32
SABLEFISH		.27		.01	.11	65.10	80.45	48.11	91.06	14.65	.21		299.97
POLLOCK		.22	.10	.02	1.57			.07	1.18	.23			3.39
HAKE		.06	3.26				542.35	174.27	323.62	726.63			1770.19
OCEAN PERCH		11.85	8.36	.08	1.03	34.81	15.82	11.19	14.58	9.57	.44		107.73
OTHER ROCKF.	.21	9.38	.95	21.33	248.29	339.76	213.53	125.41	209.93	133.27	52.68	.56	1355.30
MISC. SP.	.24	.77	1.01	2.65	2.54	1.99	1.39	.80	1.52	.83	.06	.07	13.87
DOGFISH	.02	415.47	313.06	424.93	280.56	177.56	11.83	.67	.01	72.98	17.77	55.47	1770.33
ANIMAL FOOD REDUCTION					.28	.04		2.57					2.89
TOTAL	9.25	489.19	346.02	569.09	876.32	1072.33	1148.96	556.72	1039.09	1100.93	79.90	58.56	7346.36

TABLE 10. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 3D, NORTHWEST COAST VANCOUVER IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		1.07	.23	.16	.44	.42		4.37		.11		.03	6.83
ROCK S.		.85	.07	.55	.98	1.47	1.32	.03		.02			5.29
PETRALE S.	.39	3.47	2.42	3.42	2.54	4.09	3.24	.57	1.82	1.15	.16	.95	24.22
DOVER S.		1.31	.06	5.49	.74	.50	5.38	1.14	1.06	.26			15.94
REX SOLE		.08											.08
STARRY FLDR													
TURBOT	.05	1.55			13.65	8.43	.10						23.78
OTHER FLAT.	.10	.13	.18	.33	1.38	2.09	2.67				.22	.49	7.59
PACIFIC COD	.97	33.27	3.66	1.86	2.84	16.91	5.38	.77	5.09	2.33	.30	.60	73.98
LINGCOD	3.76	12.23	6.08	10.95	18.33	97.75	76.17	1.71	2.28	3.43	3.50	9.59	245.78
SABLEFISH	.11	.44	.47	1.40	.91	4.32	13.07	6.22	7.30	22.18	8.90	.12	65.44
POLLOCK													
HAKE									.81				.81
OCEAN PERCH	4.49	94.37	111.52	166.12	61.43	97.95	155.67	74.93	103.06	189.18	108.83	12.83	1180.38
OTHER ROCKF.	349.59	1236.11	761.27	658.67	494.02	385.38	295.52	69.71	82.99	1247.96	1251.34	620.10	7452.66
MISC. SP.		.32	.18	.01	.04	.05	.04	.06	.04	.05	.01		.80
DOGFISH		7.45	15.11		24.86	17.72							65.14
ANIMAL FOOD				3.40									3.40
REDUCTION		15.38	2.30	14.93	.03			.86					33.50
TOTAL	359.46	1408.03	903.55	867.29	622.19	637.08	558.56	160.37	204.45	1466.67	1373.26	644.71	9205.62

TABLE 11. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5A, SOUTH QUEEN CHARLOTTE SOUND.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.10	.20	1.20	.58	.71	1.35	.81	1.52	.90	.37	1.29		9.03
ROCK S.			.22		7.55	4.22	2.85	3.55	3.50	1.36			23.25
PETRALE S.		8.30	2.53	.96	2.77	5.60	9.22	19.41	18.15	19.95	2.95	.10	89.94
DOVER S.		4.52	1.24		1.63	9.65	5.73	5.67	1.60	2.59	.47	.12	33.22
REX SOLE		.02											.02
STARRY FLDR					.01								.01
TURBOT		1.85	2.53		13.38	91.29	43.18	17.78	21.47	.51			191.99
OTHER FLAT.		.03		.32		.44	.42		3.24	.40	.98	.11	5.94
PACIFIC COD	2.46	2.17	.72	1.24	10.55	40.46	29.42	25.73	10.37	32.77	17.43	1.09	174.41
LINGCOD	.16	1.44	.89	.73	67.80	74.58	206.49	96.75	93.66	82.41	14.41	.32	639.64
SABLEFISH		.37	2.86	.24		.01	.28	.31	.47	.93	1.33		6.80
POLLOCK						.17	1.78	.29			.55		2.79
HAKE													
OCEAN PERCH		30.90	145.13		20.75	51.12	40.80	5.17	4.89	20.61	37.75	6.42	363.54
OTHER ROCKF.	80.60	330.69	212.39	200.16	191.21	78.08	108.60	116.65	58.63	97.36	147.37	53.84	1675.58
MISC. SP.			.07		1.04	.47	1.30	.31	1.05	1.32	.68		6.24
DOGFISH	1.52	33.47	40.02	3.61	21.87	.84	.74			2.72			104.79
ANIMAL FOOD									.15				.15
REDUCTION		3.02	3.74	12.50	.05	3.21	.50	2.11	.31	.27			25.71
TOTAL	84.84	416.98	413.54	220.34	339.32	361.49	452.12	295.25	218.39	263.57	225.21	62.00	3353.05

TABLE 12. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5B, NORTH QUEEN CHARLOTTE SOUND.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.				.29	1.79	6.56	1.70	.39	2.58	10.89	.27		24.47
ROCK S.				.15	.47	22.83	54.88	23.15	27.14	3.04		2.73	134.39
PETRALE S.		.13		1.45	1.33	1.65	11.48	4.68	7.60	2.12	.05		30.49
DOVER S.			1.28	1.16	3.48	5.02	3.10	.52	.47	.48	.16	.35	16.02
REX SOLE		.04	.02										.06
STARRY FLDR													
TURBOT		.86	.70	3.66	3.97	.59	2.88	.10	1.77	1.50			16.03
OTHER FLAT.													
PACIFIC COD		1.86	.09	1.18	12.68	7.98	5.49	19.36	3.58	13.69		.74	66.65
LINGCOD		.52	.24	1.79	8.76	180.34	482.60	118.90	198.29	18.80	.05	.33	1010.62
SABLEFISH		.03	.83	.15	.10	.22	.24	.12	.67	.14		.66	3.16
POLLOCK		.08			.03	4.51	.20		.60	.15		.03	5.60
HAKE													
OCEAN PERCH		48.06	104.47	244.33	64.74	84.96	48.07	15.54	61.58	41.32	61.78	16.36	791.21
OTHER ROCKF.	65.67	274.50	138.97	202.73	343.74	251.10	220.31	100.81	156.30	119.62	9.91	13.87	1897.53
MISC. SP.		.01			.10	11.25	29.36	.52	2.37	1.82			45.43
DOGFISH		.25											.25
ANIMAL FOOD		10.80	7.68	.54	5.43		4.36			1.23			30.04
REDUCTION			2.57		.15	5.74	3.24			.32			12.02
TOTAL	65.67	337.14	256.85	457.43	446.77	582.75	867.91	284.09	462.95	215.12	72.22	35.07	4083.97

TABLE 13. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5C, SOUTH HECATE STRAIT.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.27	1.83	.14	1.07	1.58	.29				1.47	4.80	1.24	12.69
ROCK S.	.01	.01	4.33	12.36	22.45	42.22	.86			1.38	2.60		86.22
PETRALE S.	.04	.10	.24	.28	1.11	.62	.52			4.84	6.17	1.21	15.13
DOVER S.			.16		2.34	6.16				.67	.94		10.27
REX SOLE		.22	.07	.01	.01	.06					.16		.53
STARRY FLDR													
TURBOT		.17	.42	.02	1.77		.14			1.54	1.32		5.38
OTHER FLAT.					.73								.73
PACIFIC COD	5.01	23.43	74.39	20.70	151.05	15.64	20.12			1.87	20.77	5.01	337.99
LINGCOD	.08	.80	.80	.72	18.22	5.58	13.82			2.32	8.80	1.64	52.78
SABLEFISH			.02		.03		.08			1.09	.40		1.62
POLLOCK			.06	.01						.01	.08		.16
HAKE													
OCEAN PERCH		3.03	3.32		6.64	8.58	5.49			22.72	44.96	6.97	101.71
OTHER ROCKF.	19.33	100.22	90.24	12.01	20.23	29.21	11.44			109.85	338.31	74.46	805.30
MISC. SP.	.04	.78	.32		1.42	2.29				.04	.55		5.44
DOGFISH		1.06									.25		1.31
ANIMAL FOOD			6.02				1.53			2.75	9.93		20.23
REDUCTION			.19	2.60								.99	3.78
TOTAL	24.78	131.65	180.72	49.78	227.58	110.65	54.00			150.55	440.04	91.52	1461.27

TABLE 14. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5D, NORTH HECATE STRAIT.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	20.99	42.76	35.18	51.78	46.88	45.92	34.45	18.03	1.91	2.30	18.55	1.61	320.36
ROCK S.	.69	3.58	2.22	6.42	36.24	11.64	7.38	1.82	2.50	8.11	24.93	26.99	132.52
PETRALE S.	.19	.28	.83	1.03	2.34	1.49	.33	.11	.04	1.12	2.01	.02	9.79
DOVER S.	.05	.27	1.35	.28	11.05	110.41	206.28	112.94	128.57	104.44	9.15	.18	684.97
REX SOLE	1.29	.62	.98	.86	1.22	10.82	31.07	16.24	3.83	4.70	3.02	.02	74.67
STARRY FLDR	.72	1.79	.42	1.63	12.77	11.93	2.52	1.83	.32	2.51	1.02	.04	37.50
TURBOT	3.87	9.96	12.43	12.94	36.32	141.38	51.59	26.28	10.12	25.25	16.20		346.34
OTHER FLAT.		.31	.45										.76
PACIFIC COD	46.03	105.09	232.22	528.98	295.39	396.05	89.37	21.24	8.66	11.68	9.67	2.39	1746.77
LINGCOD	3.07	3.04	3.44	11.64	16.19	17.41	14.00	4.10	3.27	4.41	1.01	1.62	83.20
SABLEFISH					.01	2.58	8.91	3.72	2.27	2.62	14.26		34.37
POLLOCK	66.38	6.79	.74	.31	.90	1.25	6.58	4.72	2.92	1.04	2.19	.21	94.03
HAKE													
OCEAN PERCH	.04			2.71		.74	1.45	.32	1.08	1.95			8.29
OTHER ROCKF.	13.06	.62	1.00	2.96	3.82	6.57	6.27	3.35	6.35	5.11	11.21	.36	60.68
MISC. SP.	8.29	13.82	14.77	14.64	30.94	10.36	10.00	4.57	2.67	4.70	3.24	1.51	119.51
DOGFISH	.24	.12		.17	.19	2.21	2.54	.47		.26	2.44		8.64
ANIMAL FOOD	1.22	.63	.41	7.34	2.18	11.50	52.91	7.97	7.57	3.57		.04	95.34
REDUCTION				.32	.29								.61
TOTAL	166.13	189.68	306.44	644.01	496.73	782.26	525.65	227.71	182.08	183.77	118.90	34.99	3858.35

TABLE 15. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5E, WEST COAST QUEEN CHARLOTTE IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK S.	.88			.04		.38						2.21	3.51
PETRALE S.	5.77	15.70	6.74	14.27	2.92	.28							45.68
DOVER S.	19.89	104.69	68.34	36.50	85.30	2.45	.89	2.56	3.29	3.37	5.98	.09	333.35
REX SOLE	.14	.96	1.14	1.50	6.16	.38	.40		.03	.09	.33		11.13
STARRY FLDR	.02	.01		.04									.07
TURBOT	.83	4.59	3.87	.40	2.35	1.55							13.59
OTHER FLAT.													
PACIFIC COD	1.69	.26	.38	2.72	1.94	.56	.06	.60	.39	.20	1.26		10.06
LINGCOD	3.18	.78	.64	1.19	2.22	1.87	.03		.43	.42	1.84	.49	13.09
SABLEFISH	6.86	33.20	19.48	6.29	21.83	10.65	4.26	1.42	8.65	8.61	8.49	.47	130.21
POLLOCK	1.02	.29							.79	.12			2.22
HAKE													
OCEAN PERCH	109.58	219.66	164.38	391.86	900.71	778.64	181.09	141.80	196.07	76.55	188.56	12.24	3361.14
OTHER ROCKF.	214.24	601.88	834.06	318.96	1046.53	430.81	158.33	63.42	235.44	270.88	64.65	39.48	4278.68
MISC. SP.	.77	.06	.01	.23	.02	.41	.14	.05	.75	.53	.19	.70	3.86
DOGFISH					.27	.01							.28
ANIMAL FOOD	3.16	5.61	14.15	7.78	44.96	18.96		3.79	5.57	1.73			105.71
REDUCTION	1.78	52.69		7.70	5.22	10.40				12.87	3.78		94.44
TOTAL	369.81	1040.38	1113.19	789.48	2120.43	1257.35	345.20	213.64	451.41	375.37	275.08	55.68	8407.02

Tables of monthly catch (t) by minor area.

TABLE 16. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 12.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		2.68	.14										2.82
ROCK SOLE													
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.												2.84	2.84
SAND SOLE			2.43										2.43
TURBOT													
STAR.FLDR		1.52	.56									2.65	4.73
OTHER FLAT.													
PACIFIC COD		.02										.35	.37
LINGCOD													
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF		.02											.02
HAKE													
OCTOPUS													
PERCH													
SKATE		.34	.23									.52	1.09
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL		4.58	3.36									6.36	14.30
CRAB													
DUMPED FISH													
DISCARDS			.23										.23

TABLE 17. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 13.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE												.09	.09
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD		.47									1.11	3.90	5.48
LINGCOD													
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF												.08	.08
HAKE													
OCTOPUS												.01	.01
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH		.50									37.44	20.15	58.09
REDUCTION													
ANIMALFOOD													
TOTAL		.97									38.55	24.23	63.75
CRAB													
DUMPED FISH													
DISCARDS												27.22	27.22

TABLE 18. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 14.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.18											.18
ROCK SOLE												.13	.13
PETRALE S.					.01	.05							.06
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.		1.08	.22	.20	.26	.45	.42	.20	.02	.09	.35	2.31	5.60
PACIFIC COD		2.44	20.75	6.26	37.97	54.74	20.76	12.69	3.49	.71	2.57	7.16	169.54
LINGCOD				.05	.02	.54	.11	.19					.91
SABLEFISH					.05	.49	.45	.24				.02	1.25
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF												.08	.08
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF				.20	.30	.18	.17	.03			.03	.06	.97
HAKE				3.63	764.04	81.50	67.06			202.14	91.07		1209.44
OCTOPUS													
PERCH													
SKATE			.08	.14	.04	.14	.10	.11	.03	.02	.02	.01	.01
SQUID												.14	.82
STURGEON													
MISC. SP.													
DOGFISH					7.73	.39	2.29	1.09			1.11	.01	.01
REDUCTION												10.07	22.68
ANIMALFOOD													
TOTAL		3.70	21.05	10.48	810.42	138.48	91.36	14.55	3.54	202.96	95.15	19.99	1411.68
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 19. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 16.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD													
LINGCOD													
SABLEFISH													
POLLOCK	.35										221.74	71.39	293.48
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS										11.67	126.48		138.15
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL	.35									11.67	348.22	71.39	431.63
CRAB													
DUMPED FISH													
DISCARDS											2.27	4.08	6.35

TABLE 20. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 17.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	4.44	6.22			.58								11.24
ROCK SOLE	.07												.43
PETRALE S.	.05										.36		.57
DOVER SOLE										.52			
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.04												.04
STAR.FLDR	.46	.72	.80	.09									2.07
OTHER FLAT.	6.36	6.86	7.12	1.09	1.19	.07				6.99	8.55	11.43	49.66
PACIFIC COD	9.69	4.67	1.13	1.44	.77	.07				6.01	3.76	3.66	31.20
LINGCOD	.30			.01		.06					.05		.42
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF	1.25	1.05	.83	.59	.37					.09	.01	.08	4.27
HAKE			85.30	711.20	311.87	49.71							1158.10
OCTOPUS	.03										.02		.03
PERCH													
SKATE	.12	.07	.10	.02	.04	.05					.01	.06	.47
SQUID													
STURGEON													
MISC. SP.													
DOGFISH				6.03							29.83		35.86
REDUCTION				2.09									2.09
ANIMALFOOD													
TOTAL	22.81	19.59	95.28	722.56	314.82	49.96				13.61	42.59	15.23	1296.45
CRAB													
DUMPED FISH													
DISCARDS				.29									.29

TABLE 21. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 18.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE											.08		.08
PETRALE S.													
DOVER SOLE										.01			.01
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT			.03										.03
STAR.FLDR			.14										.14
OTHER FLAT.	2.87	1.30	2.14	.94	1.59	.42	.74	.66	.40	3.51	9.43	9.00	33.00
PACIFIC COD	27.97	39.31	12.88	3.22	.70	.18	.35	.35	4.17	13.01	11.95	11.43	125.52
LINGCOD				.15	.33	.21	.25	.02	.08	1.29	1.06		3.39
SABLEFISH									.01				.01
POLLOCK	4.53	6.08	.18	.01							.37	.60	11.77
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF			.02										.02
OTHER RF	.63	.50	.74	.38	1.37	.15	.38	.02	.04	.12	.26	.35	4.94
HAKE	.04	.10	.33	.19	.09	.10	.10	.03	.06	.05	.11	.06	1.26
OCTOPUS	.01	.02		.02						.08	.10	.12	.35
PERCH	.27	.11	.20	.08	.03							.05	.74
SKATE	.47	.15	.52	.14	.23	.08	.13	.22	.10	.64	.67	.04	3.39
SQUID	.07	.10										.03	.20
STURGEON													
MISC. SP.													
DOGFISH	24.18		.03					3.32	6.23		40.45	7.65	81.86
REDUCTION													
ANIMALFOOD									.34				.34
TOTAL	61.04	47.67	17.21	5.13	4.34	1.14	1.95	4.62	11.43	18.71	64.48	29.33	267.05
CRAB													
DUMPED FISH													
DISCARDS											4.08		4.08

TABLE 22. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 19.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE										.01	.03		.04
PETRALE S.			.14							.01			.15
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT			.48	.29	.07		.07		.05	.73	.13		1.82
STAR.FLDR			.08										.08
OTHER FLAT.	.15	.18	2.47	.35	.07		1.09	1.04	.96	.40	.49	.05	7.25
PACIFIC COD	35.93	7.43	35.61	7.42	.80		24.74	50.94	107.22	83.59	56.02	6.70	416.40
LINGCOD			.45	.30	.13		2.33	5.15	14.08	5.14	3.20		30.78
SABLEFISH								.03	.01	.03	.17	.02	.26
POLLOCK			.10								.22		.32
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF	.08	.01	.89	.01			.15	.14	.02	.01	.06	.02	1.39
HAKE			.06										.06
OCTOPUS		.12	.28				.05	.04	.03	.04	.17	.05	.78
PERCH													
SKATE	.19	.07	1.40	.22	.03		.19	.32	.31	.42	.59	.19	3.93
SQUID													
STURGEON													
MISC. SP.			.20	.02							.01		.23
DOGFISH	2.26	1.14	.25	.06			.08	.01	.17	.08	.23	.08	4.36
REDUCTION													
ANIMALFOOD													
TOTAL	38.61	8.95	42.41	8.67	1.10		28.70	57.67	122.85	90.46	61.32	7.11	467.85
CRAB													
DUMPED FISH													
DISCARDS									.45	1.59			2.04

TABLE 23. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 20.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE		.11		1.52	2.50	1.69	2.60	1.71					10.13
PETRALE S.		.32		.08	.56	.50	.21	.41		.27			2.35
DOVER SOLE				.36	.83	2.24	2.83	1.99		3.78			12.03
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.01	.09	.01		.19		.04						.34
STAR.FLDR													
OTHER FLAT.	.01	1.86	.01		1.37	3.90	1.08	.88	2.79	.30			12.20
PACIFIC COD	11.58	29.45	.19	.07	1.25	3.38	1.16	1.98	2.43	2.67			54.16
LINGCOD		1.57			.78	1.85	2.00	1.36	1.27	.15			8.98
SABLEFISH					.01		.09						.10
POLLOCK		.35											.35
OCEAN PERCH		.06											.06
BOCACCIO						.39		.04					.43
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF		18.29					.09	.61	1.03				20.02
WIDOW RF													
OTHER RF	.03	.69		.01	1.39	1.83	1.61	5.26	2.44	.05			13.31
HAKE	.26	.07							227.14				227.47
OCTOPUS		.02				.06			.14	.03			.25
PERCH													
SKATE	.04	.75		.07	.24	.20			.24				1.54
SQUID													
STURGEON													
MISC. SP.									.02				.02
DOGFISH	.08	.06	.02		21.10	.66	2.34		.05				24.31
REDUCTION													
ANIMALFOOD													
TOTAL	12.01	53.69	.23	2.11	30.22	16.70	14.05	14.24	237.55	7.25			388.05
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 24. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 29.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.	.04		.03										.07
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR	.12	.31	.10	.03									.56
OTHER FLAT.	.42	.43	.15	.31				.24	2.97	2.23		.18	6.93
PACIFIC COD	.06	.05	.05										
LINGCOD												.11	.27
SABLEFISH													
POLLOCK	5.00		156.93	1.43									163.36
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF		.03											.03
HAKE		17.96	1660.78	617.66									2296.40
OCTOPUS													
PERCH		.08											.08
SKATE		.04	.03	.01									.08
SQUID													
STURGEON													
MISC. SP.													
DOGFISH			85.80	78.08									163.88
REDUCTION													
ANIMALFOOD													
TOTAL	5.64	18.90	1903.87	697.52				.24	2.97	2.23		.29	2631.66
CRAB													
DUMPED FISH													
DISCARDS				5.44									5.44

TABLE 25. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 21.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.23	.06	.14	2.41	2.29	.04	.01	.17	1.48			6.83
ROCK SOLE			.36	.06	1.20	1.27			7.79				10.68
PETRALE S.		.16	.01	.32	4.36	9.41	.31		3.57	1.37			19.51
DOVER SOLE					.18				.16	3.71			4.05
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		.32	.02	.12	1.92	4.96			14.30	.29			21.93
STAR.FLDR	.02		.63					.12	.03				.80
OTHER FLAT.	1.01	2.19	3.31	6.17	9.78	6.24	1.58	2.02	8.38	.58		.19	41.45
PACIFIC COD	5.88	32.57	2.24	9.69	51.06	22.10	1.23	1.30	11.54	10.57		.43	148.61
LINGCOD	.13	1.02	.94	.94	3.77	8.58	.69	.66	11.02	.74			28.49
SABLEFISH					.02	14.26	4.39	2.19	45.10	1.06			67.02
POLLOCK		.22	.10	.02	1.57				.04	.23			2.18
OCEAN PERCH				.08	.33	6.31	.08		.43				7.23
BOCACCIO						3.81	1.05	5.08	1.77				11.71
CANARY RF						.91	.41	4.67	1.77	.34			8.10
REDSTR. RF						51.78	4.54	.66	1.77				58.75
ROUGHEYE RF													
SIL'GRAY RF					.64	15.86	.41	4.47	2.80				24.18
YEL'MOUTH R													
YEL'TAIL RF							14.12	17.95	76.82	3.33			112.22
WIDOW RF		.07		.09					1.06	1.48			2.70
OTHER RF	.20	.62	.60	2.06	4.43	1.08	.24	.68	7.66				17.57
HAKE		.06					253.30	8.92	179.30	606.77			1048.35
OCTOPUS		.01	.04	.01	.10	.03	.03	.04	.12	.03			.41
PERCH			.35										.35
SKATE	.22	.72	.45	1.03	1.05	.54	.16	.24	.33	.19		.02	4.95
SQUID													
STURGEON					.01	.01							.02
MISC. SP.		.04		.02	.24	.15	.07	.08	.07				.67
DOGFISH	.02	.22	.14	.22	5.72	7.23	.13	.05	.01			55.47	69.21
REDUCTION													
ANIMALFOOD													
TOTAL	7.48	38.45	9.25	20.97	88.79	156.82	282.78	49.14	376.01	632.17		56.11	1717.97
CRAB													
DUMPED FISH													
DISCARDS					18.14	34.93	4.54	40.82	27.22				125.65

TABLE 26. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 23.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.03	.19	4.90	5.15	13.02	5.89	1.35	4.17	3.96	.04		38.70
ROCK SOLE		1.33	.01	5.54	4.21	5.34	1.73	6.64	2.43	15.61			42.84
PETRALE S.		7.83	1.65	.07	13.27	35.40	31.27	25.18	28.31	8.13	.18		151.29
DOVER SOLE		.48	2.56	.34	1.43	3.73	4.16	8.07	3.42	12.85			37.04
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		1.94			.23	87.68	59.76	31.49	41.89	.57			223.56
STAR.FLDR			.47	2.24	.19	.27	.25	.17					3.59
OTHER FLAT.	.09		.16	7.10	9.42	6.90	3.59	3.44	1.92	1.66	.35		34.63
PACIFIC COD	1.51	.25	1.80	62.48	45.75	59.75	23.92	12.77	17.22	34.78	7.14		267.37
LINGCOD	.14	.15	2.58	2.00	167.60	163.94	131.39	56.86	166.05	38.69	1.03		730.43
SABLEFISH		.26		.01	.09	36.95	75.70	38.91	43.50	12.36	.21		207.99
POLLOCK								.07	1.14				1.21
OCEAN PERCH		11.03	8.36		.02	26.71	13.09	.80	4.87	3.21	.44		68.53
BOCACCIO				3.20	30.78	9.39	7.54	1.05	4.54	.08			56.58
CANARY RF		.86			34.12	47.18	34.77	1.16	5.34	3.27			126.70
REDSTR. RF					71.26	56.15	15.18	1.00	27.28		3.43		174.30
ROUGHEYE RF			.17				.42						.59
SIL'GRAY RF					70.16	76.39	20.83	.12	.84	6.23			174.57
YEL'MOUTH R													
YEL'TAIL RF					2.98	22.25	82.13	54.32	21.55	81.53	13.23		277.99
WIDOW RF							.17			19.04	13.23		32.44
OTHER RF	.01	.46	.13	.75	10.81	9.16	7.20	6.52	11.85	6.00	7.61		60.50
HAKE			3.26				289.05	165.35	144.32	119.86			721.84
OCTOPUS				.01		.06							.07
PERCH													
SKATE	.02		.17	1.27	1.04	1.17	1.10	.35	.88	.48	.06		6.54
SQUID													
STURGEON				.08	.02	.02				.06			.18
MISC. SP.				.17									.17
DOGFISH		415.25	312.92	424.71	269.79	166.34	11.70	.62		72.98	17.77		1692.08
REDUCTION					.28	.04		2.57					2.89
ANIMALFOOD													
TOTAL	1.77	439.87	334.43	514.87	738.60	827.84	820.84	418.81	531.52	441.35	64.72		5134.62
CRAB													
DUMPED FISH													
DISCARDS			29.48	2.27	33.57	60.78	16.56	45.36	14.06				202.08

TABLE 27. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 24.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.01		2.20	2.52	1.42	1.16	.94	.47				8.72
ROCK SOLE			.24	.92				11.26	1.53	.70			14.65
PETRALE S.		2.36		1.07	5.33	8.37	3.43	1.65	3.85	.37			26.43
DOVER SOLE		.04			.12		1.16	12.95	5.19	.30			19.76
REX SOLE							.27						.27
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT					1.44			6.66	41.90				50.00
STAR.FLDR			2.05	2.79									4.84
OTHER FLAT.				.09				.48	.07	.61		1.60	2.85
PACIFIC COD		.26			.18	.09	2.09	1.43	2.53	1.15		.24	7.97
LINGCOD				10.89	10.42	12.32	9.68	8.17	19.28	4.64			75.40
SABLEFISH		.01				13.89	.36	7.01	2.46	1.23			24.96
POLLOCK													
OCEAN PERCH		.82			.68	1.79	2.65	10.39	9.28	6.36			31.97
BOCACCIO		.48		2.60	5.53			.32	3.53	.56	.18		13.20
CANARY RF			.02	9.56	5.10	14.17	16.27	3.37	15.61	2.02	.33		66.45
REDSTR. RF					7.90	9.59	5.48	13.41	2.06	5.48	.08		44.00
ROUGHEYE RF													
SIL'GRAY RF		1.15	.03	2.37	2.12	10.10		3.31	6.67		.05		25.80
YEL'MOUTH R								.11	.67				.78
YEL'TAIL RF		5.74				6.38		5.11	10.76		11.67		39.66
WIDOW RF								1.62	1.41		2.87		5.90
OTHER RF				.70	2.46	5.56	2.77	.48	4.17	3.91		.56	20.61
HAKE													
OCTOPUS					.05		.02	.04					.11
PERCH													
SKATE					.02	.01	.01	.03	.12	.07		.05	.31
SQUID								.02					.02
STURGEON				.06	.01								.07
MISC. SP.													
DOGFISH					5.05	3.99							9.04
REDUCTION													
ANIMALFOOD													
TOTAL		10.87	2.34	33.25	48.93	87.68	45.35	88.76	131.56	27.40	15.18	2.45	493.77
CRAB													
DUMPED FISH													
DISCARDS							4.54						4.54

TABLE 28. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 25.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.20				.24		4.35					4.79
ROCK SOLE					.03	.07							.10
PETRALE S.	.05	1.20	.12	2.94	.53	2.67	.17			.81	.14	.17	8.80
DOVER SOLE				5.49	.26			.03	.22				6.00
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.05				13.51	8.28							21.84
STAR.FLDR													
OTHER FLAT.	.10			.33	1.38	2.09	2.67				.22	.12	6.91
PACIFIC COD	.84	3.40	.04	.75	.86	10.44	.63			1.89	.30	.21	19.36
LINGCOD	2.60	2.24	1.05	7.21	8.25	36.58	34.45	.12		1.22	2.48	1.64	97.84
SABLEFISH				.03	.48	2.35	1.14		.07	.58	.58	.06	5.29
POLLOCK													
OCEAN PERCH			.28	18.69	4.64	59.95	10.81	.10	10.83	13.72	7.49	7.92	134.43
BOCACCIO	1.66	13.55	2.76	23.86	3.38	1.88	8.97	.40	.05	25.03	15.96	6.92	104.42
CANARY RF	11.57	21.65	9.18	75.58	15.78	29.47	19.82	.59	14.97	36.33	31.82	38.80	305.56
REDSTR. RF	3.92	10.78		25.45	84.77	33.25	16.39	.25		13.35	30.51	19.01	237.68
ROUGHEYE RF													
SIL'GRAY RF	3.15	12.88	4.02	78.62	122.73	80.84	15.91	1.95		21.63	23.53	16.71	381.97
YEL'MOUTH R					1.15				.96				2.11
YEL'TAIL RF	114.32	169.94	65.31	42.01	1.39	68.64	75.00	.28	.27	639.72	836.61	391.56	2405.05
WIDOW RF	15.74	33.56	2.54			1.16	5.20		.26	153.34	172.92	89.53	474.25
OTHER RF	.59	.34		.17	1.22	12.25	2.11	.17	.16	.43			17.44
HAKE													
OCTOPUS		.01				.01							.02
PERCH													
SKATE		.01											.01
SQUID						.01							.01
STURGEON													
MISC. SP.													
DOGFISH		1.49			11.79	4.68							17.96
REDUCTION		.22			.03			.86					1.11
ANIMALFOOD													
TOTAL	154.59	271.47	85.30	281.13	272.18	354.86	193.27	9.10	27.79	908.05	1122.56	572.65	4252.95
CRAB													
DUMPED FISH													
DISCARDS		.45				9.07	6.80			.91			17.23

TABLE 29. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 26.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.86	.23	.09	.24	.08				.11		.03	1.64
ROCK SOLE		.85	.05	.55	.91	.25	.06			.02			2.69
PETRALE S.	.21	.91	.81	.09	1.09	.28				.25		.78	4.42
DOVER SOLE					.26	.09							.35
REX SOLE		.08											.08
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT					.14	.15							.29
STAR.FLDR													
OTHER FLAT.		.04	.18									.37	.59
PACIFIC COD	.13	28.82	3.58	.98	.46	6.37				.44		.39	41.17
LINGCOD	1.16	9.28	4.44	2.65	6.58	33.55	21.49	.03		1.48		7.95	88.61
SABLEFISH										.39		.06	.45
POLLOCK													
OCEAN PERCH				6.36									
BOCACCIO		25.12	12.18	.24	1.51	1.52		.15		7.20	.12	4.91	11.27
CANARY RF	25.37	9.70	21.77		7.95	4.20		.18		7.78	.45	5.36	48.04
REDSTR. RF		2.16	4.17			1.50		.76		3.74	1.00		82.76
ROUGHEYE RF													13.33
SIL'GRAY RF	27.61	51.05	22.76	8.18	14.77	13.01		.31		4.33	.03	10.87	152.92
YEL'MOUTH R													
YEL'TAIL RF	31.85	56.38	36.07		.71	16.64				232.67	27.29	20.63	422.24
WIDOW RF	.89	7.57	2.61			2.50				38.79	4.71		57.07
OTHER RF	2.24	.97	10.80										14.01
HAKE													
OCTOPUS		.02											.02
PERCH		.05											.05
SKATE													
SQUID													
STURGEON		.21	.18		.03								.42
MISC. SP.		.02											.02
DOGFISH		5.90	9.05		10.61	9.53							35.09
REDUCTION													
ANIMALFOOD													
TOTAL	89.46	199.99	128.88	19.14	45.26	89.67	21.55	1.43		297.20	33.60	51.35	977.53
CRAB													
DUMPED FISH													
DISCARDS					.91								.91

TABLE 30. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 27.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.01		.07	.20	.10		.02					.40
ROCK SOLE			.02		.04	1.15	1.26	.03					2.50
PETRALE S.	.13	1.36	1.49	.39	.92	1.14	3.07	.57	1.82	.09	.02		11.00
DOVER SOLE		1.31	.06		.22	.41	5.38	1.11	.84	.26			9.59
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		1.55					.10						1.65
STAR.FLDR													
OTHER FLAT.		.09											.09
PACIFIC COD		1.05	.04	.13	1.52	.10	4.75	.77	5.09				13.45
LINGCOD		.71	.59	1.09	3.50	27.62	20.23	1.56	2.28	.73	1.02		59.33
SABLEFISH	.11	.44	.47	1.37	.43	1.97	11.93	6.22	7.23	21.21	8.32		59.70
POLLOCK													
OCEAN PERCH	4.49	94.37	111.24	141.07	56.79	38.00	144.87	74.83	92.23	175.46	101.33		1034.68
BOCACCIO		11.68	4.58		2.69	16.57	5.84	.91	17.03	3.25	4.88		67.43
CANARY RF		.92	11.82		17.93	32.98	44.64	.65	3.16	7.27	11.45	1.88	132.70
REDSTR. RF		124.90	175.85	221.99	86.69	.53	20.16	5.40	2.38	6.96	9.78	3.77	658.41
ROUGHEYE RF		6.22	.27	1.94					3.31	.08			11.82
SIL'GRAY RF		32.99	29.56	18.62	110.50	46.62	12.82	16.65	29.68	5.14	19.45	11.30	333.33
YEL'MOUTH R	86.13	372.38	189.60	118.56	13.44	6.58	44.64	38.67	8.35	34.40	54.89	3.76	971.40
YEL'TAIL RF		136.30	72.45	23.95	2.01	4.26	15.63	.70					255.30
WIDOW RF	24.55	97.76	51.50	1.92	.11	.03	.24		.02	1.13	.21		177.47
OTHER RF		37.31	31.47	17.58	5.29	10.95	8.15	1.69	2.39	5.39	5.73		125.95
HAKE									.81				.81
OCTOPUS									.02				.02
PERCH													
SKATE													
SQUID				.01		.03	.04	.06	.02	.05	.01		.22
STURGEON					.01								.01
MISC. SP.													
DOGFISH		.06	6.06		2.46	3.51							12.09
REDUCTION		15.16	2.30	14.93									32.39
ANIMALFOOD				3.40									3.40
TOTAL	115.41	936.57	689.37	567.02	304.75	192.55	343.75	149.84	176.66	261.42	217.09	20.71	3975.14
CRAB													
DUMPED FISH													
DISCARDS		20.28	26.67	3.18							.45		50.58

TABLE 31. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 9.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE					.26				.05				.31
PETRALE S.									.05				.05
DOVER SOLE						1.06							1.06
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD									.14				.14
LINGCOD					.54				.69				1.23
SABLEFISH													
POLLOCK													
OCEAN PERCH					3.61	6.43	2.89						12.93
BOCACCIO									.21				.21
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF						1.57	1.36						2.93
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL					4.41	9.06	4.25		1.14				18.86
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 32. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 11.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.10	.20	1.20	.58	.71	1.35	.81	1.52	.90	.37	1.29		9.03
ROCK SOLE			.22		7.29	4.22	2.85	3.55	3.45	1.36			22.94
PETRALE S.		8.30	2.53	.96	2.77	5.60	9.22	19.41	18.10	19.95	2.95	.10	89.89
DOVER SOLE		4.52	1.24		1.63	8.59	5.73	5.67	1.60	2.59	.47	.12	32.16
REX SOLE		.02											.02
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		1.85	2.53		13.38	91.29	43.18	17.78	21.47	.51			191.99
STAR.FLDR					.01								.01
OTHER FLAT.		.03		.32		.44	.42		3.24	.40	.98	.11	5.94
PACIFIC COD	2.46	2.17	.72	1.24	10.55	40.46	29.42	25.73	10.23	32.77	17.43	1.09	174.27
LINGCOD	.16	1.44	.89	.73	67.26	74.58	206.49	96.75	92.97	82.41	14.41	.32	638.41
SABLEFISH		.37	2.86	.24		.01	.28	.31	.47	.93	1.33		6.80
POLLOCK						.17	1.78	.29			.55		2.79
OCEAN PERCH		30.90	145.13		17.14	44.69	37.91	5.17	4.89	20.61	37.75	6.42	350.61
BOCACCIO		13.84	21.49	27.39	5.06	14.83	14.19	1.94	2.94	13.80	21.10	20.20	156.78
CANARY RF		24.04	1.43		8.37	7.18	12.97	.72	9.95	11.02	16.18	4.38	96.24
REDSTR. RF		43.85	62.62	88.97	88.45	17.08	25.70	18.02	7.01	1.21	7.79		360.70
ROUGHEYE RF		12.68	1.00										13.68
SIL'GRAY RF	36.33	54.32	32.62	42.53	25.57	21.81	23.70	20.86	17.09	53.98	60.38	19.63	408.82
YEL'MOUTH R		115.94	31.72	20.39	14.43		1.71	4.70	16.50	2.82	18.94		227.15
YEL'TAIL RF	44.26	43.19	46.74	20.88	45.12	5.52	26.79	59.39	1.02	8.17	19.96	9.16	330.20
WIDOW RF		3.37	9.23		3.60	3.09			2.51		1.83		23.63
OTHER RF		19.45	5.55		.62	7.01	2.17	11.01	1.40	6.37	1.19	.47	55.24
HAKE													
OCTOPUS					.01	.01	.03	.02	.07	.06			.20
PERCH													
SKATE			.01		1.03	.45	1.27	.29	.98	1.24	.65		5.92
SQUID											.03		.03
STURGEON			.06										.06
MISC. SP.						.01				.02			.03
DOGFISH	1.52	33.47	40.02	3.61	21.87	.84	.74			2.72			104.79
REDUCTION		3.02	3.74	12.50	.05	3.21	.50	2.11	.31	.27			25.71
ANIMALFOOD									.15				.15
TOTAL	84.83	416.97	413.55	220.34	334.92	352.44	447.86	295.24	217.25	263.58	225.21	62.00	3334.19
CRAB													
DUMPED FISH													
DISCARDS		36.74		4.99	1.81	8.48	2.27	3.63					57.92

TABLE 33. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 8.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.				.29	1.79	6.56	1.70	.39	2.58	10.89	.27		24.47
ROCK SOLE				.15	.47	22.83	54.88	23.15	27.14	3.04		2.73	134.39
PETRALE S.		.13		1.45	1.33	1.65	11.48	4.68	7.60	2.12	.05		30.49
DOVER SOLE			1.28	1.16	3.48	5.02	3.10	.52	.47	.48	.16	.35	16.02
REX SOLE		.04	.02										.06
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		.86	.70	3.66	3.97	.59	2.88	.10	1.77	1.50			16.03
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD		1.86	.09	1.18	12.68	7.98	5.49	19.36	3.58	13.69		.74	66.65
LINGCOD		.52	.24	1.79	8.76	180.34	482.60	118.90	198.29	18.80	.05	.33	1010.62
SABLEFISH		.03	.83	.15	.10	.22	.24	.12	.67	.14		.66	3.16
POLLOCK		.08			.03	4.51	.20		.60	.15		.03	5.60
OCEAN PERCH		48.06	104.47	244.33	64.74	84.96	48.07	15.54	61.58	41.32	61.78	16.36	791.21
BOCACCIO		.24	1.66	8.66	6.88	14.37	71.07	46.01	22.93	20.89	.91	1.16	194.78
CANARY RF		15.94	2.09	.66	8.11	36.18	69.68	16.49	18.32	14.26	1.16	.89	183.78
REDSTR. RF		19.43	19.89	14.76	1.38	1.33	.20	3.68	6.67	3.93	1.90	6.82	79.99
ROUGHEYE RF			.38	2.20									2.58
SIL'GRAY RF	65.67	238.86	64.25	104.97	50.72	30.50	47.78	24.17	80.13	68.57	3.88	.45	779.95
YEL'MOUTH R			36.68	51.12	2.13					.53	.93		91.39
YEL'TAIL RF			4.41		268.94	165.49	27.53	8.99	14.55	5.26		3.22	498.39
WIDOW RF			.84	.65	2.30	1.11	2.04	1.17	8.97		.91		17.99
OTHER RF		.03	8.77	19.71	3.28	2.12	2.01	.30	4.73	6.18	.22	1.33	48.68
HAKE													
OCTOPUS					.10	.10	.04	.03	.16	.03			.46
PERCH													
SKATE		.01				11.15	29.32	.49	2.21	1.79			44.97
SQUID													
STURGEON													
MISC. SP.													
DOGFISH		.25											.25
REDUCTION			2.57		.15	5.74	3.24			.32			12.02
ANIMALFOOD		10.80	7.68	.54	5.43		4.36			1.23			30.04
TOTAL	65.67	337.14	256.85	457.43	446.77	582.75	867.91	284.09	462.95	215.12	72.22	35.07	4083.97
CRAB													
DUMPED FISH													
DISCARDS				4.76	123.74	11.02	4.54	23.45	6.80	32.66		9.07	216.04

TABLE 34. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2BE.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.32	.01	.05	1.58	.29				.37	3.18	.04	5.84
ROCK SOLE		.01	4.31	12.36	22.45	42.22	.86			1.32	1.08		84.61
PETRALE S.			.12	.05	1.11	.62	.52			4.35	5.10	.31	12.18
DOVER SOLE			.02		2.34	6.08				.16	.94		9.54
REX SOLE		.02	.02		.01	.06					.15		.26
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT			.36	.02	1.77		.14			.42			2.71
STAR.FLDR													
OTHER FLAT.					.73								.73
PACIFIC COD		3.61	5.38	13.05	150.12	15.56	20.12			.70	14.91	.15	223.60
LINGCOD		.47	.63	.40	18.22	5.58	13.82			1.51	6.03	1.64	48.30
SABLEFISH			.02		.03		.08			1.09	.30		1.52
POLLOCK			.06	.01						.01	.08		.16
OCEAN PERCH		3.03	3.32		6.64	8.58	5.49			22.72	44.96	6.97	101.71
BOCACCIO					.45	.08	2.01			4.49	10.12	1.62	18.77
CANARY RF		2.17	1.63	.21		.26	.92			4.86	16.07	17.93	44.05
REDSTR. RF		2.58	10.21	.21			4.38			3.34	25.94	1.94	48.60
ROUGHEYE RF											.18		.18
SIL'GRAY RF	19.32	94.56	76.33	5.66	12.30	24.48	3.21			88.43	200.79	32.48	557.56
YEL'MOUTH R				5.46		2.10				.23			7.79
YEL'TAIL RF					1.98					1.23	58.36	5.59	67.16
WIDOW RF				.08							3.93	1.73	5.74
OTHER RF		.37	.93		2.00		.92			.24	9.76	4.89	19.11
HAKE													
OCTOPUS					.03	.03				.01	.05		.12
PERCH													
SKATE		.29			1.38	2.26					.51		4.44
SQUID													
STURGEON													
MISC. SP.													
DOGFISH		1.06									.25		1.31
REDUCTION				2.60								.99	3.59
ANIMALFOOD			6.02				1.53			2.75	9.93		20.23
TOTAL	19.32	108.49	109.37	40.16	223.14	108.20	54.00			138.23	412.62	76.28	1289.81
CRAB													
DUMPED FISH													
DISCARDS			4.99	41.96	23.79	7.03	.91				9.07		87.75

TABLE 35. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 5L.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.27	1.51	.13	1.02						1.10	1.54	1.20	6.77
ROCK SOLE	.01		.02							.06	1.52		1.61
PETRALE S.	.04	.10	.13	.23						.49	.97	.89	2.85
DOVER SOLE			.14			.08				.51			.73
REX SOLE		.20	.05	.01							.01		.27
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		.17	.05							1.13	1.32		2.67
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD	5.01	19.82	69.01	7.65	.93	.08				1.17	5.86	4.86	114.39
LINGCOD	.08	.33	.17	.32						.81	2.77		4.48
SABLEFISH											.05		.05
POLLOCK													
OCEAN PERCH													
BOCACCIO		.09									2.90	.17	3.16
CANARY RF													
REDSTR. RF						1.76							1.76
ROUGHEYE RF													
SIL'GRAY RF		.45	1.14		3.50	.53				7.03	7.12	5.01	24.78
YEL'MOUTH R													
YEL'TAIL RF											.23		.23
WIDOW RF													
OTHER RF	.01			.39									.40
HAKE													
OCTOPUS	.04	.04	.02										.10
PERCH													
SKATE		.45	.30							.03			.78
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION			.19										.19
ANIMALFOOD													
TOTAL	5.46	23.16	71.35	9.62	4.43	2 45				12.33	24.29	12.13	165.22
CRAB													
DUMPED FISH													
DISCARDS			24.95		.23	2.27							27.45

TABLE 36. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 6.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.											.08		.08
ROCK SOLE											.10		.10
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD													
LINGCOD													
SABLEFISH											.05		.05
POLLOCK													
OCEAN PERCH													
BOCACCIO											.91		.91
CANARY RF												1.94	1.94
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF											2.00	1.16	3.16
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL											3.14	3.10	6.24
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 37. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 1E.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.34	.04	.93	2.62	3.06				.07			7.06
ROCK SOLE	.52	1.30	.92	4.56	15.56	6.60	2.03			6.44	2.12	.61	40.66
PETRALE S.					.84	.02	.09			.33			1.28
DOVER SOLE		.27			.03	.13				.40			.83
REX SOLE			.02	.12	.04					.15			.33
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.04	.08	2.65	.22	2.58	7.62	2.39						15.58
STAR.FLDR	.27	.21	.34	.08	1.85	.12	.80			.86		.04	4.57
OTHER FLAT.													
PACIFIC COD	.18	.96	9.04	7.85	63.88	50.69	5.59			.38		1.05	139.62
LINGCOD		.08	.45	.12	3.14	3.21	2.75			.38		1.34	11.47
SABLEFISH													
POLLOCK	.01											.21	.22
OCEAN PERCH				2.71									2.71
BOCACCIO													
CANARY RF			.12										.12
REDSTR. RF				.14									.14
ROUGHEYE RF													
SIL'GRAY RF				.52		.46				.22			1.20
YEL'MOUTH R													
YEL'TAIL RF	8.38	.10											8.48
WIDOW RF													
OTHER RF	.15			.12	.20	.73							1.20
HAKE													
OCTOPUS		.02	.02	.01	.02					.01			.08
PERCH													
SKATE	.24	.39	3.68	1.82	3.80	.61	1.31			1.14			12.99
SQUID													
STURGEON													
MISC. SP.													
DOGFISH	.17												.17
REDUCTION													
ANIMALFOOD		.32	.12		.81	.66	1.13						3.04
TOTAL	9.96	4.07	17.40	19.20	95.37	73.91	16.09			10.38	2.12	3.25	251.75
CRAB													
DUMPED FISH													
DISCARDS		2.72		62.14	2.74	5.90							73.50

TABLE 38. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 4.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	18.71	36.10	26.46	45.44	40.10	39.61	34.45	18.03	1.91	1.91	1.78	1.61	266.11
ROCK SOLE	.09	1.30	1.01	.97	20.35	2.76	5.35	1.82	2.50	1.66	19.46	26.39	83.66
PETRALE S.	.01	.02	.05	.04	.33	.62	.24	.11	.04	.47	.13	.02	2.08
DOVER SOLE			1.35	.28	11.02	110.23	206.28	112.94	128.57	70.90	6.91	.18	648.66
REX SOLE	.45	.45	.30	.73	1.18	10.82	31.07	16.24	3.83	4.16	2.40	.02	71.65
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	3.83	9.85	7.31	12.39	32.77	133.76	49.20	26.28	10.12	23.58	5.17		314.26
STAR.FLDR	.45	1.39	.08	1.55	10.92	11.81	1.72	1.83	.32	1.57	1.02		32.66
OTHER FLAT.		.31											.31
PACIFIC COD	13.62	53.29	17.52	328.18	197.33	318.39	83.78	21.24	8.66	11.08	1.79	1.34	1056.22
LINGCOD	2.75	1.80	1.16	10.71	11.53	13.41	11.25	4.10	3.27	3.91	.47	.28	64.64
SABLEFISH					.01	2.58	8.91	3.72	2.27	2.48	.48		20.45
POLLOCK	66.37	6.79	.66	.21	.85	1.25	6.58	4.72	2.92	1.04	2.19		93.58
OCEAN PERCH						.74	1.45	.32	1.08	1.95			5.54
BOCACCIO										.04			.04
CANARY RF				.12			.05						.17
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF	.50	.26		.80	.70	.65	.96	1.48	.23	1.38			6.96
YEL'MOUTH R													
YEL'TAIL RF	2.86	.02				3.63	1.87	.43	.55		.76		10.12
WIDOW RF													
OTHER RF	.51	.09	.23	.07	2.23	.99	3.39	1.44	5.57	3.15	.18	.36	18.21
HAKE													
OCTOPUS	.08	.15	.02	.11	.04	.09	.06	.02	.03	.02	.15	.16	.93
PERCH													
SKATE	7.86	11.34	9.48	10.85	26.17	8.92	8.63	4.45	2.61	3.50	2.61	1.35	97.77
SQUID								.10	.03				.13
STURGEON													
MISC. SP.													
DOGFISH	.07	.12		.17	.19	2.21	2.54	.47					5.77
REDUCTION													
ANIMALFOOD	.79	.31	.29	7.34	1.37	10.84	51.78	7.97	7.57	3.57		.04	91.87
TOTAL	118.95	123.59	65.92	419.96	357.09	673.31	509.56	227.71	182.08	136.37	45.50	31.75	2891.79
CRAB													
DUMPED FISH							6.80						6.80
DISCARDS			20.64		58.06	296.43	9.98	36.92		13.61		45.36	481.00

TABLE 39. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 5U.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	2.28	6.32	8.68	5.41	4.16	3.25				.32	16.77		47.19
ROCK SOLE	.08	.98	.29	.88	.33	2.28				.01	3.35		8.20
PETRALE S.	.18	.26	.78	.99	1.17	.85				.32	1.88		6.43
DOVER SOLE	.05					.05				33.14	2.24		35.48
REX SOLE	.84	.17	.66	.01						.39	.62		2.69
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		.03	2.47	.33	.97					1.67	11.03		16.50
STAR.FLDR		.19								.08			.27
OTHER FLAT.			.45										.45
PACIFIC COD	32.23	50.84	205.66	192.95	34.18	26.97				.22	7.88		550.93
LINGCOD	.32	1.16	1.83	.81	1.52	.79				.12	.54		7.09
SABLEFISH										.14	13.78		13.92
POLLOCK			.09	.10	.04								.23
OCEAN PERCH	.04												.04
BOCACCIO		.15		.58	.27						9.80		10.80
CANARY RF						.09							.09
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF	.37		.32	.23	.42					.32	.46		2.12
YEL'MOUTH R													
YEL'TAIL RF	.23			.20									.43
WIDOW RF													
OTHER RF	.06		.33	.18		.02					.01		.60
HAKE													
OCTOPUS	.06	.21	.13	.08	.08	.02				.03	.38		.99
PERCH													
SKATE	.05	1.71	1.44	1.77	.83	.72					.10		6.62
SQUID													
STURGEON													
MISC. SP.													
DOGFISH										.26	2.44		2.70
REDUCTION				.32	.29								.61
ANIMALFOOD	.43												.43
TOTAL	37.22	62.02	223.13	204.84	44.26	35.04				37.02	71.28		714.81
CRAB													
DUMPED FISH													
DISCARDS	13.61		16.78	11.48	40.82	6.80						2.72	92.21

TABLE 40. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 1W.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE	.88			.04		.38						2.21	3.51
PETRALE S.	.12			4.81	2.65	.28							7.86
DOVER SOLE	.72	87.88		14.76	81.97	2.45	.89	2.56	3.29	3.37	5.98	.09	203.96
REX SOLE	.01			1.46	6.11	.38	.40		.03	.09	.33		8.81
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.54			.40	2.35	1.55							4.84
STAR.FLDR	.02			.04									.06
OTHER FLAT.													
PACIFIC COD	.76			2.27	1.90	.56	.06	.60	.39	.20	1.26		8.00
LINGCOD	1.96			.19	2.15	1.87	.03		.43	.42	1.84	.49	9.38
SABLEFISH	4.62			2.74	21.49	10.51	4.26	1.42	8.65	8.61	8.49	.47	71.26
POLLOCK	1.02								.79	.12			1.93
OCEAN PERCH	17.42			274.60	870.47	773.73	181.09	141.80	196.07	66.97	188.56	12.24	2722.95
BOCACCIO					.16	.04				3.05	.45		3.70
CANARY RF	.02			.04						.23			.29
REDSTR. RF	7.41			.93	374.66	124.65	114.65	23.18	28.11	15.68	9.55	6.97	705.79
ROUGHEYE RF	5.32			11.57	123.77	26.67	17.01	1.75	151.14	88.01	27.69	7.91	460.84
SIL'GRAY RF	11.56			21.07	40.61	56.77	6.59	7.90	10.24	6.82	2.58	7.75	171.89
YEL'MOUTH R	12.50			21.62	289.52	143.47	13.07	5.50	28.73	78.44	8.42	13.71	614.98
YEL'TAIL RF						1.63				2.37		2.33	6.33
WIDOW RF				6.64	2.96	2.92		.41	1.46		.20		14.59
OTHER RF	3.58			8.36	106.03	68.75	7.01	24.68	15.76	37.90	15.76	.81	288.64
HAKE													
OCTOPUS					.01								.01
PERCH													
SKATE	.36			.23		.41			.03	.01	.02	.70	1.76
SQUID	.35				.01		.14	.05	.72	.52	.17		1.96
STURGEON													
MISC. SP.													
DOGFISH					.27	.01							.28
REDUCTION						10.40				12.87	3.78		27.05
ANIMALFOOD	.54			.89	44.96	18.96		3.79	5.57	1.73			76.44
TOTAL	69.71	87.88		372.66	1972.05	1246.39	345.20	213.64	451.41	327.41	275.08	55.68	5417.11
CRAB													
DUMPED FISH													
DISCARDS					4.08	.23							4.31

TABLE 41. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2AW.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.	5.65	15.70	6.74	9.41	.27								37.77
DOVER SOLE	19.17	16.81	68.34	21.73	3.33								129.38
REX SOLE	.13	.96	1.14	.04	.05								2.32
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.29	4.59	.30										5.18
STAR.FLDR		.01											.01
OTHER FLAT.													
PACIFIC COD	.93	.23	.38	.45	.04								2.03
LINGCOD	1.22	.78	.55	1.00	.07								3.62
SABLEFISH	2.24	33.19	19.46	3.31	.34	.14							58.68
POLLOCK		.29											.29
OCEAN PERCH	92.16	197.55	135.78	71.91	30.24	4.91				9.58			542.13
BOCACCIO	1.85	.66	.16										2.67
CANARY RF	36.34	51.93	19.04	2.89									110.20
REDSTR. RF	31.03	226.25	253.07	132.38	19.47					27.12			689.32
ROUGHEYE RF	60.06	75.13	97.14	28.43	1.28	5.58				.73			268.35
SIL'GRAY RF	29.02	109.07	116.79	30.10	4.67					4.15			293.80
YEL'MOUTH R	7.79	128.41	301.97	44.51	54.83					6.38			543.89
YEL'TAIL RF	.49	.06	.48										1.03
WIDOW RF	2.44	2.02	30.14	2.37									36.97
OTHER RF	4.83	8.17	10.01	2.28	28.57	.33							54.19
HAKE													
OCTOPUS													
PERCH													
SKATE	.06	.06	.01										.13
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION	1.78	52.69		7.70	5.22								67.39
ANIMALFOOD	2.62	5.61	14.15	5.64									28.02
TOTAL	300.10	930.17	1075.65	364.15	148.38	10.96				47.96			2877.37
CRAB													
DUMPED FISH													
DISCARDS				4.54									4.54

TABLE 42. 1986 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2BW.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.				.05									.05
DOVER SOLE				.01									.01
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT			3.57										3.57
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD		.03											.03
LINGCOD			.09										.09
SABLEFISH		.01	.02	.24									.27
POLLOCK													
OCEAN PERCH		22.11	28.60	45.35									96.06
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF			.20	.22									.42
SIL'GRAY RF				1.12									1.12
YEL'MOUTH R			4.14	3.82									7.96
YEL'TAIL RF													
WIDOW RF			.92	.45									1.37
OTHER RF		.18		.16									.34
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD				1.25									1.25
TOTAL		22.33	37.54	52.67									112.54
CRAB													
DUMPED FISH													
DISCARDS		.45											.45

OTHER GROUNDFISH FISHERIES

Groundfish landings in this category are those caught by longline, trap, handline, troll, and incidental to shrimp trawl. In 1986, these landings totalled 7,494 t, 12% above the 1985 total. Sablefish (4,125 t), rockfish (1,469 t), dogfish (947 t) and lingcod (903 t) accounted for 99% of the catch by other gear. Catches by main species, gear type and major area are presented in Table 43.

No effort data are available for handline, troll, longline, or incidental to shrimp trawl. The catches for these gears were obtained from British Columbia Commercial Catch Statistics 1986, by Species, Gear, Month, and Area, Fisheries and Oceans, Canada, Pacific Region.

Interviews were conducted with skippers of trap vessels to obtain catch and effort data. Total trap landings in 1986 were 3,277 t of which sablefish was the prominent species. The main areas of production were north Queen Charlotte Sound (Area 5B), west coast of Queen Charlotte Islands (Area 5E), southwest coast of Vancouver Island (Area 3C) and northwest coast of Vancouver Island (Area 3D) accounting for 33%, 25%, 17%, and 15% respectively. Trap landings of groundfish in 1986 by major area, month and species, are presented in Tables 44-50. Eighty-one percent (by weight) of the trap landings were covered by interviews. Table 51 shows the monitored landings, effort, and CPUE by major area. A separation of the 1986 trap landings by minor area is given in Table 52.

Table 43. British Columbia landings (t, round weights) of groundfish caught by gear other than trawl in 1986 by major area and species.

Gear and species	Major area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
Handline and troll									
Dogfish	2.85	0.37	-	-	0.28	-	0.29	-	3.79
Lingcod	100.97	186.18	133.08	21.10	19.64	32.05	35.08	19.55	547.65
Pacific cod	2.81	5.45	0.57	-	-	0.01	0.02	-	8.86
Rockfish	357.87	84.73	69.71	9.71	11.87	9.97	16.05	7.66	567.57
Sablefish	0.46	0.02	-	0.29	-	-	-	-	0.77
Misc. species	1.67	11.59	1.39	-	-	-	0.12	0.02	14.79
Incidental to shrimp trawl									
Dogfish	4.31	-	-	-	-	-	-	-	4.31
Lingcod	0.03	1.79	-	-	-	-	-	-	1.82
Pacific cod	0.12	-	-	-	-	-	-	-	0.12
Rockfish	1.51	0.91	-	-	-	-	-	-	2.42
Sole	1.02	0.36	-	-	-	-	-	-	1.38
Misc. species	3.19	0.52	-	-	-	-	-	-	3.71
Longline									
Dogfish	333.72	241.56	56.40	207.34	4.89	73.82	21.27	-	939.00
Lingcod	16.14	81.59	96.04	12.82	17.02	68.00	31.80	29.91	353.32
Pacific cod	0.81	1.72	0.08	0.43	-	0.22	0.56	0.02	3.84
Rockfish	138.68	95.19	268.75	55.92	104.90	96.51	55.16	83.88	898.99
Sablefish	14.14	443.60	113.33	23.29	19.06	70.63	75.72	86.95	846.72
Misc. species	3.39	5.53	6.89	0.77	0.09	0.30	0.28	0.15	17.40
Trap									
Lingcod	-	0.28	-	-	-	-	-	-	0.28
Sablefish	34.67	547.47	479.12	264.75	1093.54	23.88	-	833.70	3277.13
Total									
Dogfish	340.88	241.93	56.40	207.34	5.17	73.82	21.56	-	947.10
Lingcod	117.14	269.84	229.12	33.92	36.66	100.05	66.88	49.46	903.07
Pacific cod	3.74	7.17	0.65	0.43	-	0.23	0.58	0.02	12.82
Rockfish	498.06	180.83	338.46	65.63	116.77	106.48	71.21	91.54	1468.98
Sablefish	49.27	991.09	592.45	288.33	1112.60	94.51	75.72	920.65	4124.62
Sole	1.02	0.36	-	-	-	-	-	-	1.38
Misc. species	8.25	17.64	8.28	0.77	0.09	0.30	0.40	0.17	35.90

Table 44. 1986 British Columbia trap landings (t) of groundfish--International Area 4B, Strait of Georgia.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	34.67	-	-	-	-	-	-	34.67
Total	-	-	-	-	-	34.67	-	-	-	-	-	-	34.67

Table 45. 1986 British Columbia trap landings (t) of groundfish--International Area 3C, southwest coast of Vancouver Island.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	0.02	-	0.26	-	-	-	-	-	-	0.28
Sablefish	-	25.29	-	328.60	-	185.95	-	-	-	-	-	7.63	547.47
Total	-	25.29	-	328.62	-	186.21	-	-	-	-	-	7.63	547.75

Table 46. 1986 British Columbia trap landings (t) of groundfish--International Area 3D, northwest coast of Vancouver Island.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	187.02	-	281.24	-	-	-	-	-	10.86	479.12
Total	-	-	-	187.02	-	281.24	-	-	-	-	-	10.86	479.12

Table 47. 1986 British Columbia trap landings (t) of groundfish--International Area 5A, south Queen Charlotte Sound.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	156.29	-	108.46	-	-	-	-	-	-	264.75
Total	-	-	-	156.29	-	108.46	-	-	-	-	-	-	264.75

Table 48. 1986 British Columbia trap landings (t) of groundfish--International Area 5B, north Queen Charlotte Sound.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	413.07	-	674.92	-	-	-	-	-	5.55	1093.54
Total	-	-	-	413.07	-	674.92	-	-	-	-	-	5.55	1093.54

Table 49. 1986 British Columbia trap landings (t) of groundfish--International Area 5C, south Hecate Strait.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	23.88	-	-	-	-	-	-	-	-	23.88
Total	-	-	-	23.88	-	-	-	-	-	-	-	-	23.88

Table 50. 1986 British Columbia trap landings (t) of groundfish--International Area 5E, west coast of Queen Charlotte Islands.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	494.74	-	321.24	-	-	-	-	-	17.72	833.70
Total	-	-	-	494.74	-	321.24	-	-	-	-	-	17.72	833.70

Table 51. Total landings (t), monitored landings (t), and monitored effort (traps) for the British Columbia trap fleet in 1986.

Major area	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)
4B	34.67	-	-	-
3C	547.75	318.36	39,210	0.008
3D	479.12	418.13	29,183	0.014
5A	264.75	264.75	18,142	0.015
5B	1093.54	1056.91	47,316	0.022
5C	23.88	0.59	100	0.006
5E	833.70	611.75	37,270	0.016
Total	3277.41	2670.49	171,221	0.016

Table 52. British Columbia trap landings by species and minor area in 1986.

	Minor area								
Species	13	15	16	18	23	24	25	26	27
Lingcod	-	-	-	-	0.01	0.27	-	-	-
Sablefish	9.12	18.24	6.32	0.99	245.98	301.49	226.04	31.38	221.70
Total	9.12	18.24	6.32	0.99	245.99	301.76	226.04	31.38	221.70

	Minor area							
Species	11	8	5L	6	1W	2AW	2BW	Total
Lingcod	-	-	-	-	-	-	-	0.28
Sablefish	264.75	1093.54	4.08	19.80	10.12	644.83	178.75	3277.13
Total	264.75	1093.54	4.08	19.80	10.12	644.83	178.75	3277.41

JOINT-VENTURE/FOREIGN FISHERIES

Since 1978, Canadian trawlers have participated in joint-venture fisheries. Canadian catcher vessels deliver Pacific hake and incidental species to foreign processing vessels in cooperative fishing arrangements. These fisheries take place off the southwest coast of Vancouver Island (Area 3C). These data are separated from the domestic landings because the joint-venture and foreign catches (converted from processed weight) are reported by the foreign processing vessels and cannot be verified by weight tallies. These data were collated and tallied by the Offshore Division of Fisheries Branch in Vancouver.

In 1986, twenty-one Canadian catcher vessels delivered Pacific hake and incidental species to eleven processing vessels. A total of 30,136 t of Pacific hake was processed by seven Polish vessels and four Soviet vessels.

Other countries have conducted fisheries for Pacific hake off the southwest coast of Vancouver Island for several years. Several of the processing vessels involved in the joint-venture fishery occasionally fish directly (supplemental fishing) when Canadian domestic vessels could not supply sufficient quantities of Pacific hake. This supplemental catch is added to the national catch.

Nine Polish and five Soviet vessels caught 22,939 t of Pacific hake during the national fishery in 1986. Five of the processing vessels caught 803 t of Pacific hake during supplemental fishing.

The joint-venture and foreign catches of groundfish for 1986 are presented in Table 53.

Table 53. Joint-venture and foreign catches[a] (t) of groundfish from International Area 3C--southwest coast of Vancouver Island in 1986.

Nation and species	Joint-venture	National	Supplemental	Total
Poland				
Pacific hake	13,494	14,827	778	29,099
Walleye pollock	19	14	-	33
Pacific ocean perch	-	6	-	6
Other rockfish	6	132	tr	138
Other species	tr	1	-	1
USSR				
Pacific hake	16,642	8,112	25	24,779
Walleye pollock	63	1	-	64
Pacific ocean perch	-	32	-	32
Other rockfish	34	71	1	106
Other species	tr	tr	-	tr
Total				
Pacific hake	30,136	22,939	803	53,878
Walleye pollock	82	15	-	97
Pacific ocean perch	-	38	-	38
Other rockfish	40	203	1	244
Other species	tr	1	-	1

[a]Catches (converted from processed weight) are reported by foreign processing vessels and cannot be verified by weight tallies.

CATCHES BY INPFC AREA

This report is also produced to satisfy requirements of committees of the International North Pacific Fisheries Commission (INPFC) (Canada, Japan and United States). To complement the previous tables, groundfish landings in metric tonnes (t) are presented in Tables 54-56 for trawl and other gears according to INPFC areas. The relationship between these INPFC areas and the major areas used in the first portion of this report is as follows:

INPFC Area	Major Area	Latitude
Charlotte	5A, 5B, 5C, 5D, 5E[5]	50°30'N - 54°30'N
Vancouver	3B[6], 3C[6], 3D, 4B[7]	47°30'N - 50°30'N

[5]Northernmost 10 miles actually in Southeastern.
[6]Southernmost 10 miles actually in Columbia.
[7]Inside waters (Strait of Georgia).

Table 54. British Columbia landings[a] (t) of groundfish taken by all types of gear in 1986 by INPFC area.

Species	INPFC area		Total
	Vancouver	Charlotte	
English sole	85.53	366.55	452.08
Rock sole	74.15	379.89	454.04
Petrale sole	224.66	191.03	415.69
Dover sole	88.82	1077.83	1166.65
Rex sole	0.35	86.41	86.76
Starry flounder	16.81	37.58	54.39
Turbot	321.50	573.33	894.83
Other flatfish	207.81	7.43	215.24
Pacific cod	1312.43	2337.14	3649.57
Lingcod	1740.68	2086.30	3826.98
Sablefish	1999.84	2667.97	4667.81
Pollock	472.67	104.80	577.47
Hake	6801.88	-	6801.88
Pacific ocean perch	1288.17	4625.89	5914.06
Other rockfish	9870.87	9169.40	19040.27
Misc. species	62.87	182.21	245.08
Dogfish	2865.72	423.16	3288.88
Animal food	3.74	251.47	255.21
Reduction	38.48	136.56	175.04
Total	27,476.98	24,704.95	52,181.93

[a]Does not include catches from joint-return or foreign fishery, see Table 53.

Table 55. British Columbia domestic trawl landings (t) of groundfish in 1986 by INPFC area.

Species	INPFC area		Total
	Vancouver	Charlotte	
English sole	85.53	366.55	452.08
Rock sole	74.15	379.89	454.04
Petrale sole	224.66	191.03	415.69
Dover sole	88.82	1077.83	1166.65
Rex sole	0.35	86.41	86.76
Starry flounder	16.81	37.58	54.39
Turbot	321.50	573.33	894.83
Other flatfish	206.43	7.43	213.86
Pacific cod	1300.87	2335.88	3636.75
Lingcod	1124.58	1799.33	2923.91
Sablefish	367.03	176.16	543.19
Pollock	472.67	104.80	577.47
Hake	6801.88	-	6801.88
Pacific ocean perch	1288.17	4625.89	5914.06
Other rockfish	8853.52	8717.77	17,571.29
Misc. species	28.70	180.48	209.18
Dogfish	2226.51	115.27	2341.78
Animal food	3.74	251.47	255.21
Reduction	38.48	136.56	175.04
Total	23,524.40	21,163.66	44,688.06

Table 56. British Columbia landings (t) of groundfish caught by gear other than trawl in 1986 by INPFC area.

Gear and species	INPFC Area		Total
	Vancouver	Charlotte	
Handline and troll			
Dogfish	3.22	0.57	3.79
Lingcod	420.23	127.42	547.65
Pacific cod	8.83	0.03	8.86
Rockfish	512.31	55.26	567.57
Sablefish	0.48	0.29	0.77
Misc. species	14.65	0.14	14.79
Incidental to shrimp trawl			
Dogfish	4.31	-	4.31
Lingcod	1.82	-	1.82
Pacific cod	0.12	-	0.12
Rockfish	2.42	-	2.42
Sole	1.38	-	1.38
Misc. species	3.71	-	3.71
Longline			
Dogfish	631.68	307.32	939.00
Lingcod	193.77	159.55	353.32
Pacific cod	2.61	1.23	3.84
Rockfish	502.62	396.37	898.99
Sablefish	571.07	275.65	846.72
Misc. species	15.81	1.59	17.40
Trap			
Lingcod	0.28	-	0.28
Sablefish	1061.26	2215.87	3277.13
Total	3952.58	3541.29	7493.87

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